NOTICE

All drawings located at the end of the document.





Rocky Flats Environmental Technology Site

Radiological and Non-Radiological Characterization Package for the Building 707 Cluster

November 1999

	Revision 0)
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Approved by	Jeff Stevens Manager, D&D Advanced Planning	11/15/99 pate
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B707-A-000002

Building N/A Survey Area: 707 Cluster | Survey Unit: N/A

Survey Unit Description
Characterization Package for B-707 Cluster

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Survey Unit II	429
Survey Unit JJ	438
Survey Unit KK	447
Survey Unit LL	457

Survey Area: 707 Cluster	Survey Unit: N/A	Building N/A	
Survey Unit Descriptio	n		
Characterization Package for B-70	7 Cluster		

Characterization Package Summary:

The B-707 cluster consists of Buildings 707, 708, 711, 711A, 718, 731, 707T, 707S, and Tanks 16, 206, 208-223, 284, 290, 324, and 325

The characterization strategy for the B-707 cluster buildings for radiological and non-radiological contaminants is based upon the draft *Reconnaissance Level Characterization Plan*, including the Data Quality Objectives (DQOs). The DQOs used to implement this strategy are presented below (following this summary). The DQO process was used to evaluate existing information and data and to determine additional characterization requirements needed to define building hazards (radiological, chemical and safety) per Attachment 9 of RFCA and to initially identify anticipated waste streams. All quality assurance requirements presented in MAN-077-DDCP, *Decontamination and Decommissioning Characterization Protocol* (DDCP) will be followed.

Existing data on radiological and non-radiological hazards associated with structures in the B-707 cluster are insufficient to address the applicable DQO decision rules. In most cases, radiological surveys were carried out only in certain areas and below 6 feet. Also, data generally address only removable contamination, and do not address fixed contamination throughout the structures. Likewise, limited data exist for non-radiological hazards such as beryllium and asbestos, and no data exist for penetration of RCRA metals into concrete

Based upon historical and process knowledge, the radiological contaminants of concern for the purposes of surveys and sampling were determined to be uranium, plutonium, and americium. The non-radiological contaminants of concern for the purposes of sampling were determined to be RCRA metals, beryllium, PCBs, and asbestos. The total surveys and samples to be taken are summarized in Table 1.

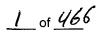
Radiological Characterization

Extensive radiological surveys for fixed and removable contamination will be conducted on walls, floors, ceilings, fixed equipment, overhead items (e.g., process lines, conduit, lighting), and above false ceilings Additionally, because process knowledge and history reveal that contamination was routinely painted over, paint chip samples will be taken at biased locations and analyzed for isotopic contaminants. Sludge from the bottom of the B-711 Cooling Tower will also be collected and analyzed. Radiological measurements and samples will be collected per 3-PRO-165-RSP 07 02, Contamination Monitoring Requirements, and 3-PRO-165-RSP-16 03, Radiological Sampling of Building Media

Non-Radiological Characterization

While RCRA volatile organics were used routinely in some of the cluster buildings, history and process knowledge reveal no spills of magnitude sufficient to saturate concrete and remain detectable at this time, given the vapor pressure of these substances. Additionally, carbon tetrachloride and perchloroethylene were handled mainly in gloveboxes. RCRA volatile organics contained in process lines and tanks will not be characterized as part of reconnaissance level characterization, but will be documented in the Reconnaissance Level Characterization Report (RLCR) based upon historical and process knowledge.

Biased samples of concrete into which the Kathabar dehumidifying system leaked Kathene fluid potentially contaminated with metals (particularly chromium, cadmium, and lead) will be analyzed for RCRA metals. Additionally, a small number of randomly located concrete floor samples will be analyzed for RCRA metals in order to determine whether contamination spread beyond visible areas of staining. A few small rooms or areas constituting RCRA permitted unit 707.1 are located in B-707 and could contain some contamination. These areas will not be sampled under reconnaissance level characterization. They will be addressed during RCRA.



Survey Area: 707 Cluster	Survey Unit [·] N/A	Building N/A		
Survey Unit Description				
Characterization Package for B-70	7 Cluster			

closure The administrative records for these units and potential related hazards will be documented in the RLCR

Biased samples of wood slats and sediment from the B-711 Cooling Tower will be analyzed for RCRA metals due to the potential use of chromium-based fungicide in the unit

Beryllium use was extensive in several modules of B-707, and review of sampling conducted by the Chronic Beryllium Disease Prevention Program revealed data gaps. Smear sampling is planned in several areas on horizontal surfaces, fixed equipment, ductwork, overhead items, and above drop ceilings, in order to fill data gaps.

Examination of records of analyses of lead and PCBs in paint revealed data gaps. However, these data are not strictly required for waste characterization, as stated in Environmental / Waste Compliance Guidance No 27, Lead Based Paint (LBP) and LBP Debris Disposal, and Environmental / Waste Compliance Guidance No 25, Management of Polychlorinated Biphenyls (PCBs) in Paint and Other Bulk Product Waste During Facility Disposition. Furthermore, sampling of building debris after demolition is expected to be carried out. Also, because extensive scabbling of floors (e.g., hydrolazing) can reasonably be expected to occur during decontamination and decommissioning of B-707, it is expected that radiological concerns will supercede those posed by lead or PCBs in determining respiratory protection and other IH&S requirements. Additionally, due to the large number of layers of paint and the extreme variability of paint from area to area, limited sampling will not be sufficient to allow IH&S to rule out the presence of lead and PCB in paint during scabbling operations. Therefore, in the instance of the B-707 cluster, characterization of lead and PCBs in paint is not considered to be cost-effective at the reconnaissance level and will not be conducted.

The buildings contain flourescent light ballasts that contain PCBs. These need not be sampled, as stated in Environmental / Waste Compliance Guidance No. 27, Management of Fluorescent Light Ballasts, but must be disposed of during stripout as described in that guidance document.

Examination of asbestos inspection records revealed data gaps. Asbestos inspection and sampling (where necessary) will be conducted in all the buildings in the cluster

Non-radiological sampling and analyses are as per PRO-563-ACPR, Asbestos Characterization Procedure, PRO-536-BCPR, Beryllium Characterization Procedure, PRO-488-BLCR, Bulk Solids and Liquids Characterization Procedure, and PRO-487-MPCR, Metals and PCB Characterization Procedure

	Number of Samples or Surveys
Sample or Survey Type	
Radiological smears (removable contamination)	5198
Radiological surveys (fixed contamination)	5198
Radiological scans (fixed contamination)	2654
Beryllium smears	. 71
Concrete cores (RCRA metals)	13
Paint chip samples (isotopics)	49
Sludge samples (isotopics)	5
Sludge samples (RCRA metals)	5
Wood chip samples (RCRA metals)	4
Asbestos samples	47

Table 1 Total samples and surveys to be taken for characterization of the B-707 cluster

Survey Area: 707 Cluster | Survey Unit: N/A | Building N/A | Survey Unit Description

Characterization Package for B-707 Cluster

Data Quality Objectives:

This section defines the DQOs for reconnaissance level characterization (RLC) of the B-707 cluster buildings and structures

1 The Problem

The problem involves characterizing the nature and extent of radiological, chemical and safety hazards in the B-707 cluster buildings and structures in order to 1) initially evaluate methods of disposition, 2) estimate approximate volumes of sanitary, low-level (LLW), low-level mixed, transuranic (TRU), transuranic-mixed, TSCA, asbestos, and RCRA waste generated during the decommissioning process, and 3) provide input to the design of in-process and pre-demolition (final) survey characterization

2 The Decision

The critical decision is estimating the inventories of the different waste categories that will be generated during decommissioning of the B-707 cluster buildings and structures. Characterization data evaluation will involve assessing if enough validated data exist to adequately describe the nature and extent of contamination or if additional data are necessary.

3. Inputs to the Decision

The inputs to the decision include the RLC data and information generated from previous characterization activities (e.g., scoping characterization, etc.), as well as the applicable unrestricted release criteria, and transportation and waste management regulations

RLC data to be collected include

- radiological survey/scan measurements of all buildings and structures,
- isotopic concentrations of paint chips from floors of selected buildings,
- RCRA metals TCLP concentrations from core samples of concrete floors in B-707,
- beryllium concentrations from smears in selected areas of B-707, and
- · asbestos inspection and sampling results

4 Decision Boundaries

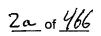
The decision boundaries include the spatial confines of the survey areas within the B-707 cluster buildings and structures as described in detail in this Characterization Package

5 Decision Rules

Radionuclides

If process knowledge/history supports the premise that no radioactive contamination is present, the related area and/or volume of material is considered sanitary waste and may be free-released

If all radiological survey/scan measurements are below the surface contamination thresholds provided in DOE Order 5400 5 (Radiation Protection of the Public and Environment) and the RFETS Radiological Control Manual, the related area or volume of material is considered sanitary waste and may be free-released



Survey Area: 707 Cluster | Survey Unit: N/A | Building N/A

Survey Unit Description

Characterization Package for B-707 Cluster

If all radiological sample measurements are below the volume contamination thresholds provided in the No-Rad-Added Verification (NRA) Program, the related volume of material is considered sanitary waste and may be free-released

If any radiological survey/scan measurement exceeds the surface contamination thresholds provided in DOE Order 5400 5, the related area or volume of material must be remediated or dispositioned as radiological or mixed waste

If any radiological sample measurement exceeds the volume contamination thresholds provided in the NRA Program, the related volume of material must be remediated or dispositioned as radiological or mixed waste

If any radiological sample measurement (or disposal unit volume) exceeds 100 nanocuries per gram of transuranic material, the associated volume must be disposed of as transuranic (TRU) waste

Hazardous Waste

If the waste is mixed with or contains a listed hazardous waste, or if-the waste exhibits a characteristic of a hazardous waste, then the waste is considered hazardous waste in accordance with 6 CCR 1007-3, Parts 261 and 268

Hazardous Substances

If the material/media contain a listed hazardous substance above a decision document action level and/or the CERCLA reportable quantity (40 CFR 302 4), remediate or notify the receiving waste disposal facility of the hazardous substance and the estimated quantity prior to shipment

Beryllium

If surface concentrations of beryllium are equal to or greater than 0.2 ug/100 cm², the material is considered beryllium contaminated per the Occupational Safety and Industrial Hygiene Program Manual, Chapter 28, Chronic Beryllium Disease Prevention Program If the concentrations are below 0.2 ug/100 cm², the material is considered non-beryllium contaminated

If detectable beryllium contamination can be shown through process knowledge to consist of beryllium powder (P015 under RCRA), then the material is considered RCRA waste and subject to treatment standards under 40 CFR 268 40

PCBs

Material/media potentially contaminated with PCBs will be categorized per 40 CFR 761. If material meets the definition of PCB Bulk Product Waste, it may be disposed of at a facility that is permitted, licensed, or registered by a State to manage municipal solid waste subject to 40 CFR 258, or non-municipal, non-hazardous waste subject to 40 CFR 257 5 through 257 30. For most bulk product wastes, implementing this strategy precludes the need for PCB characterization prior to or during facility disposition, as long as restrictions outlined in 40 CFR 761 62 regarding their disposal are met. However, notification to the disposal facility is required at least 15 days in advance of shipping wastes to the facility if that disposal facility does not possess a commercial PCB storage or disposal approval.

Management strategy for PCB remediation waste will be determined on a case-by-case basis. If PCB contamination is suspected, or if a PCB spill is discovered that has not been cleaned up, the area will be treated as directed by the most recent versions of 40 CFR 761 through 766, the RFETS Polychlorinated Biphenyls Management Plan (PRO-673-EWQA-1 5), and the WSRIC standards. For each planned cleanup,

Survey Area: 707 Cluster | Survey Unit: N/A | Building N/A

Survey Unit Description

Characterization Package for B-707 Cluster

PCB regulations under TSCA will be evaluated as potentially applicable or relevant and appropriate requirements (ARARs), including the disposal options for PCB remediation waste listed under 40 CFR 761 61

Asbestos

In accordance with 40 CFR 763 and 5 CCR 1001-10, if any one sample of a sample set representing a homogeneous medium results in a positive detection (i.e., >1% by volume), then material is considered ACM, otherwise the material is considered non-ACM

6 Tolerable Limits on Decision Errors

Acceptable false positive and negative errors generally range from 1% to 10%. Other limits may be used, if agreed to by the D&D Projects and Construction Organization, the Project Manager, DOE and the LRA Decision error does not apply to asbestos sample sets per 40 CFR 763. Results are compared with the action levels on a sample-by-sample basis

Sampling design error for radiological sampling will be controlled by requiring a minimum number of uniformly distributed (n=30) and biased surveys (n=10) to be performed in each survey area. In addition, surface area size limits are assigned for survey areas based on contamination potential

7 Optimization of Plan Design

The following criteria provide potential areas for optimization of the RLCP

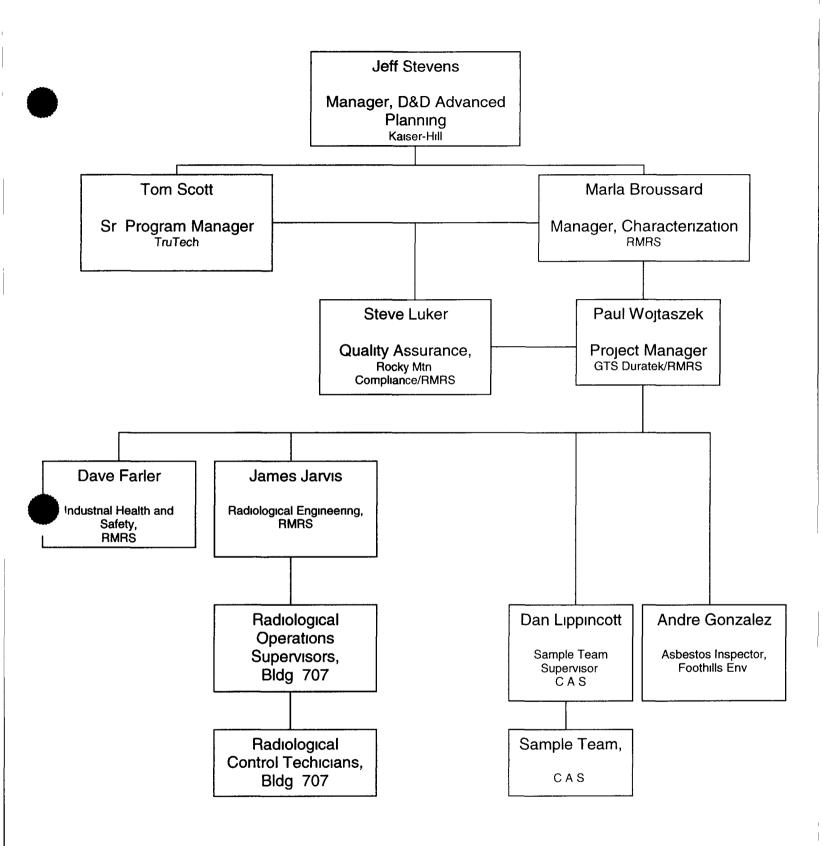
- If additional data (radiological, RCRA, TSCA, and asbestos) are not required to make decisions, then RLC surveys/sampling are not required
- If RCRA, TSCA or asbestos survey/samples are required for materials, media, equipment and interior and exterior building surfaces, refer to the DDCP, Section 6.0

If radiological survey/samples are required for materials, media, equipment and interior and exterior building surfaces, then the following requirements apply

- A minimum number of uniformly distributed and biased measurements (refer to Appendix A) must be collected
- A minimum number of biased samples must be collected (if surface media or volumetric contamination are suspect)

Radiological field measurement methods and instrumentation will be performed in accordance with approved RFETS site procedures and this document

Radiological sampling and preparation for laboratory measurements will be performed in accordance with approved RFETS site procedures and this document



Organizational Chart

Characterization of B-707 Cluster Buildings

Non-Radiological Characterization Instruction Bldg. 707 Cluster

Survey Area: 707 Cluster Survey Unit. N/A Building 707

Survey Unit Description
Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Building 707

Radiological Contaminants of Concern U, Pu

Non-Radiological Contaminants of Concern Asbestos, Beryllium, RCRA Metals, PCBs

Special Support Requirements

Ladder, scaffolding, or man-lift Media samplers to take paint and concrete core samples from floors. IH technicians to take beryllium smear samples. CDPHE-certified asbestos inspector for inspections and sampling. RCTs to support sampling operations.

Special Safety Precautions

Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel. Refer to Activity Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team. DQO's and data evaluation requirements are covered in the *Decontamination* and *Decommissioning Characterization Protocol*, MAN-077-DDCP.

Paul A Wojtaszek		faul A What	11/15/97
Preparer Printed Name	Employee #	Preparer Signature	Date
James H. Moore		Xt home	11/15/99
Quality Assurance Reviewer Printed Name	Employee #	Quality Assurance Reviewer Signature	Date

Survey Area: 707 Cluster Survey Unit: N/A Building 707					
Survey Unit Description					
Characterization Package for B-70	7 Cluster				

SAMPLING AND SURVEY INSTRUCTIONS

Mınımum Survey & Sample Measurement Requirements					
Measurement	Amount & Type	Comments			
Media samples for asbestos analysis	25 media samples including thermal systems insulation on first and second floor, surfacing materials, and floor tile/mastic SEE NOTES 1 and 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling and analysis SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure, Sampler SHALL provide a map or sketch of precise sample locations and media (i.e., show pipes, ducts, etc)			

Survey Area: 707 Cluster | Survey Unit. N/A

Building

Survey Unit Description

Characterization Package for B-707 Cluster

Smear samples for beryllium analysis

Total of 71 smears (64 samples plus 7 duplicates) to be collected as follows (SEE NOTES 1 AND 2)

First floor

3 smears each at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface) of Modules A, B, C, D, E, F, G, H, J and K (*i.e.*, above drop ceiling or above 2 meters if no drop ceiling) These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to *but not overlapping with* radiological smears. One duplicate should be collected every 10 samples. (Total 33 samples)

1 smear *inside* each of 6 internal return ducts (i.e., remove grille and smear inside duct) of Zone 2 HVAC systems serving Modules F, G, and H (collect 1 field duplicate immediately adjacent to one of these samples),

2 smears on horizontal surfaces (excluding floor) in Room 125 A, Module F, 2 smears on horizontal surfaces (excluding floor) in Room 125B. Module F.

1 smear in each of 5 hoods in Module G (collect 1 field duplicate immediately adjacent to one of these samples).

1 smear each from internal areas of 2 pressure chambers in Module G, Room 131A,

1 smear each from internal areas of 3 autoclaves in Module H.

2 smears on horizontal surfaces (excluding floor) in Room 135C, Module H (collect 1 field duplicate immediately adjacent to one of these samples),

2 smears on horizontal surfaces (excluding floor) in Room 136, Module H (collect 1 field duplicate immediately adjacent to one of these samples),

Second floor

2 smears each on or near plenums 101 and 103, Room 200.

2 smears each on or near plenums 107 and 108, Room 220.

2 smears on or near plenum 102, Room 240

SEE NOTES 1 AND 2

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Sampler SHALL be an industrial hygiene representative, Sampling and analysis SHALL be performed according to PRO-536-BCPR, Beryllium Characterization Procedure

Survey Area: 707 Cluster | Survey Unit: N/A | Building 707

Survey Unit Description

Characterization Package for B-707 Cluster

Bulk concrete samples for RCRA metals analysis Total of 13 bulk samples (11 samples plus 2 duplicates) to be collected as follows

- 4 bulk samples plus a duplicate, using either a coring tool or chisel, at biased locations of leaking Kathabar system on 2nd floor,
- 4 bulk samples plus a duplicate at random locations on first floor (see Concrete Core Sampling Maps and Grids for Locating Random ampling Locations, attached), if locations given in the sampling map are inaccessible, replacement coordinates will be generated by the Project Manager using the attached grid and random number list
- 3 bulk samples at random locations on second floor (see Concrete Core Sampling Maps and Grids for Locating Random ampling Locations, attached), if locations given in the sampling map are inaccessible, replacement coordinates will be generated by the Project Manager using the attached grid and random number list

Paint must be scraped off and removed from surface before bulk sample is taken to avoid contamination of concrete sample by components of paint,

SEE NOTES 1, 2, 3, 4, and 5

Sampling and analysis
SHALL be performed
according to PRO-488-BLCR,
Bulk Solids and Liquids
Characterization Procedure,
Samples will be analyzed for
TCLP metals (RCRA codes
D004-D011) pursuant to ASD
standards by EPA SW-846
Method 1311, "Toxicity
Characteristic Leaching
Procedure"

Survey Area: 707 Cluster Survey Unit. N/A Building 707
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Survey Unit Description

Characterization Package for B-707 Cluster

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling log. In order that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arlan Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, Unrestricted Release of Property, Material, Equipment, and Waste

NOTE 3 The structural integrity of the concrete into which leaking Kathene solution penetrated has been compromised by the corrosive effect of the solution on concrete Building engineering must evaluate the area before samples are taken Consult engineering calculation #CALC-776-NA-000060, *Inspection / Evaluation of Kathene Damaged Reinforced Concrete Floor*, for results of evaluation of similar area in B-776

NOTE 4 Rebar and utility location must be conducted by building enginering prior to drilling

NOTE 5 Where locations for sampling are in an area that requires intact concrete and paint covering as part of secondary containment, sample locations will be filled and repainted as per building management instructions and according to building work instructions and procedures

Survey Area: 707 Cluster Survey Unit: N/A Building 707				
Survey Unit Description				
Characterization Package for B-70	7 Cluster			

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit. N/A	Building 707	
Survey Unit Description			
Characterization Package for B-70	7 Cluster		

Asbestos Containing Material Inventory Worksheet

Building Number Pipe insulation	Room Number	Date		
Туре		Lır	near/sq ft	Fitting count
Туре		Lır	near/sq ft	Fitting count
Туре		Lır	near/sq ft	Fitting count
Туре		Lır	near/sq ft	Fitting count
Duct insulation				
Туре	Duct Siz	e/app		Sq ft
Туре	Duct Siz	e/app		Sq ft
Туре	Duct Siz	e/app		Sq ft
Туре	Duct Siz	e/app		Sq ft
Other				
SURFACE INVENTO	RY			
Location	Description			Sq ft
Location	Description			Sq ft
Location	Description			Sq ft
Location	Description			Sq ft
MISCELLANEOUS II	NVENTORY			
Location	Description			Sq ft
Location	Description			Sq ft
Location	Description			Sq ft
Location	Description			Sq ft
PREPARED BY			DATE	
SIGNATURE				

Survey Area: 707 Cluster Survey Unit: N/A Building 707					
Survey Unit Description					
Characterization Package for B-70	17 Cluster				

Asbestos Sampling Data Sheet			
Job #	Name		Date
General Description	n of building/area		
Sample Number	Sam	ple Description and Location	on
the transport of			
<u> </u>			
PREPARED BY		DATE	-

Survey Area: 707 Cluster Survey Unit N/A Building 707

Survey Unit Description
Characterization Package for B-707 Cluster

BERYLLIUM SMEAR SAMPLING MAPS AND SAMPLE LOG SHEET B-707

Survey Area: 707 Cluster	Survey Unit N/A	Building 707	
Survey Unit Descriptio Characterization Package for B-70			

Beryllium Sample Log

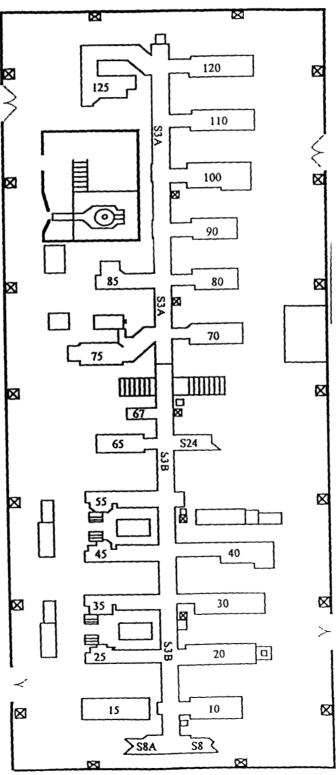
NAME	LABORATORY
EMPLOYEE #	DATE OF ANALYSIS
DATE	SAMPLE PREFIX

Sample Sequence Number	Bldg and Room Number	Description	Random or Judgment	Area sampled (cm²)	μg/ sample
			}		
		414			

ROCKY DE AUS EN MEROMMENTEAU TURCHNOLOGY STUD

... Drawing Showing Survey Points

MODULE A



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to but not overlapping with radiological smears. One duplicate should be collected every 10 samples





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*Drawing Showing Survey Points

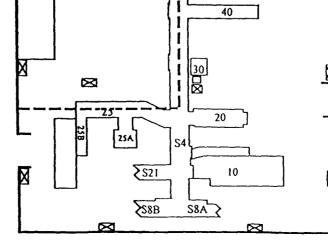
MODULEB

Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to but not overlapping with radiological smears One duplicate should be collected every 10 samples

Temporary Walls



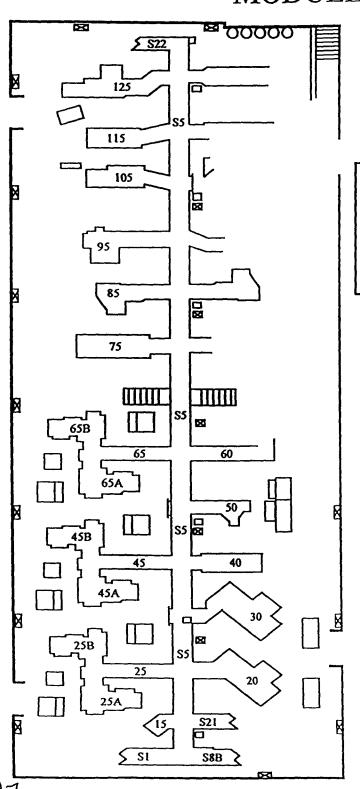
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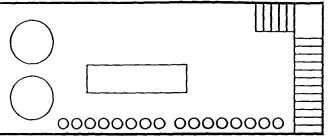
ACTORY DIAMS TO BE ONIMINITAL TRECTINGLOCIES OF

Drawing Showing Survey Points

MODULE C

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Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

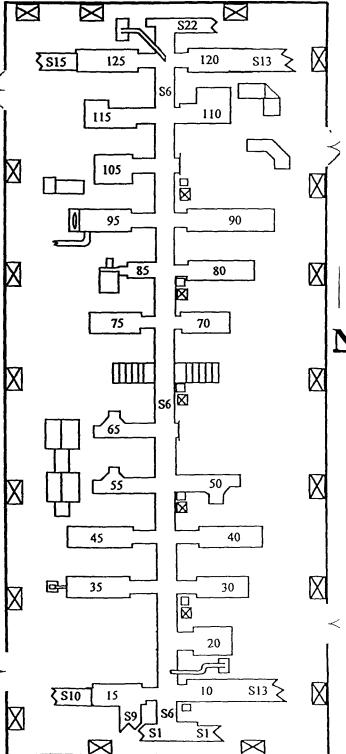
These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to but not overlapping with radiological smears. One duplicate should be collected every 10 samples

RADIOLOGICALSAFETY

ROCKY FLATS IN TROM**VENTAL TECHNOLOG**Y SITE

Drawing Showing Survey Points

MODULE D



20/466

Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

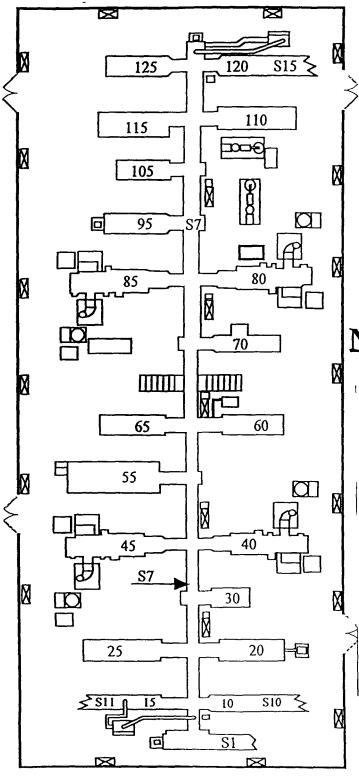
These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to but not overlapping with radiological smears. One duplicate should be collected every 10 samples



Drawing Showing Survey Points

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Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas. Beryllium smears should be done adjacent to but not overlapping with radiological smears. One duplicate should be collected every 10 samples.

21/466

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RADIOEOGICALSAFETY

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Drawing Showing Survey Points

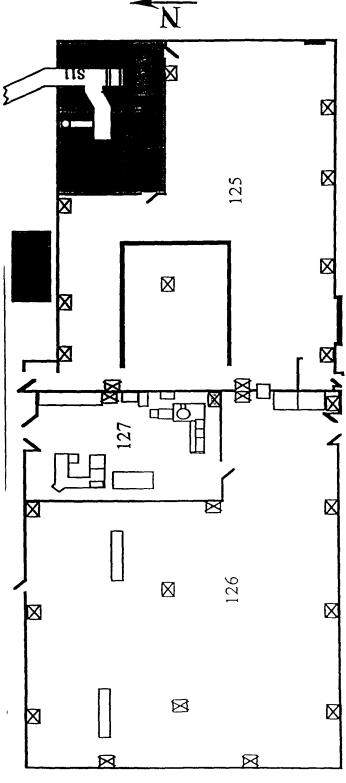
MODULE F

Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to but not overlapping with radiological smears One duplicate should be collected every 10 samples

- 1 smear *inside* each of 6 internal return ducts (i e , remove grille and smear inside duct) of Zone 2 HVAC systems serving Modules F, G, and H (collect 1 field duplicate immediately adjacent to one of these samples),
- 2 smears on horizontal surfaces (excluding floor) in Room 125 A, Module F.
- 2 smears on horizontal surfaces (excluding floor) in Room 125B, Module F.

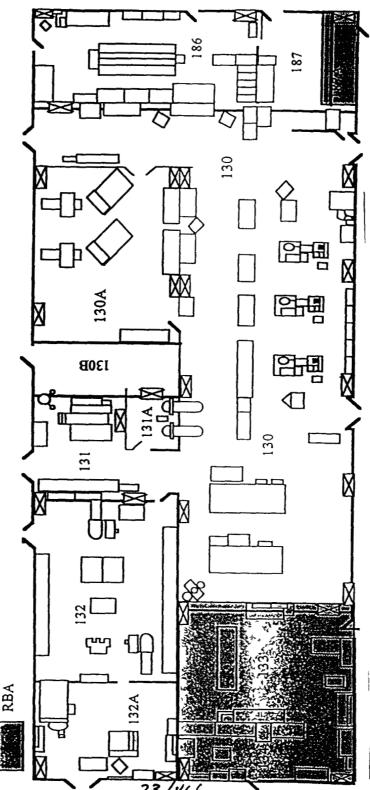


RADIOEOGICAL SAFETY

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Drawing Showing Survey Points

MODULE G



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

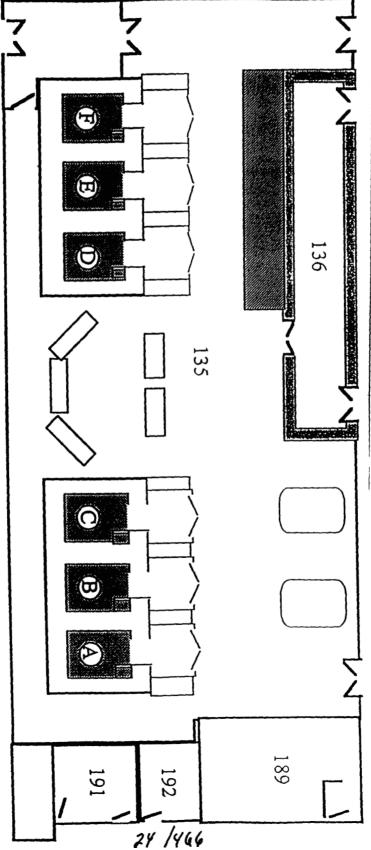
These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to but not overlapping with radiological smears. One duplicate should be collected every 10 samples

1 smear *inside* each of 6 internal return ducts (i.e., remove grille and smear inside duct) of Zone 2 HVAC systems serving Modules F, G, and H (collect 1 field duplicate immediately adjacent to one of these samples),

1 smear in each of 5 hoods in Module G (collect 1 field duplicate immediately adjacent to one of these samples),

1 smear each from internal areas of 2 pressure chambers in Module G Room 131A

VY A CONTRIBUTE OF PROTOCY STATE TANTOROGO CALENA PORTE Drawing Showing Survey Points



Module H

Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to but not overlapping with radiological smears One duplicate should be collected every 10 samples

1 smear inside each of 6 internal return ducts (i e , remove grille and smear inside duct) of Zone 2 HVAC systems serving Modules F, G, and H (collect 1 field duplicate immediately adjacent to one of these samples).

1 smear each from internal areas of 3 autoclaves in Module

2 smears on horizontal surfaces (excluding floor) in Room 135C. Module H (collect 1 field duplicate immediately adjacent to one of these samples),

2 smears on horizontal surfaces (excluding floor) in Room 136 Module H (collect 1 field duplicate immediately adjacent to one of these samples)

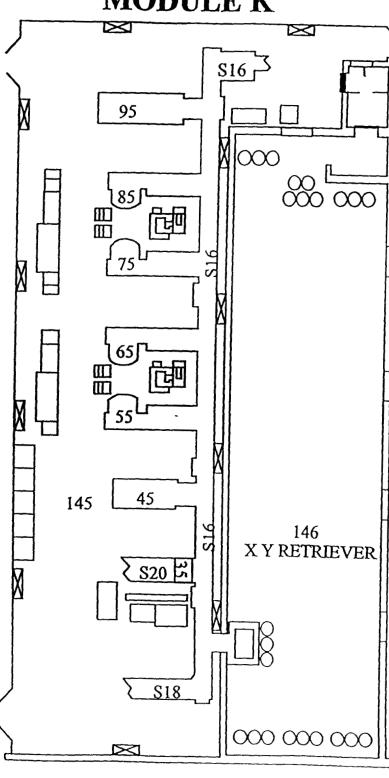
MODULE J **S16** 65 60 Beryllium smear sampling: 3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to but not overlapping with radiological smears One duplicate should be collected every 10 samples 15 S24 _ 25/466

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Drawing Showing Survey Points

MODULE K



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to but not overlapping with radiological smears. One duplicate should be collected every 10 samples

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Survey Area: 707 Cluster Survey Unit N/A Building 707

Survey Unit Description
Characterization Package for B-707 Cluster

CONCRETE CORE SAMPLING MAPS AND GRIDS FOR LOCATING RANDOM SAMPLING LOCATIONS B-707

Survey Area: 707 cluster | Survey Unit: N/A | Building 707

Survey Unit Description

Characterization Package for B-707 Cluster

Random Grid Concrete Coring Locations

If the coordinates given below are inaccessible at the time of sampling, the Project Manager will utilize the attached random number list and grid instructions to determine further random locations

A rectangular grid with a 1 3 (x,y) ratio was overlaid on a map of Modules A B, C, D, E, F, G and H (first floor), and Rooms 200, 210, and 220 (second floor) A 3 foot clearance from the N and E walls was given such that samples corresponding to a location having a zero would not be directly adjacent to the wall. The grid origin (0,0) is always at the NE corner, 3 feet from the N wall and 3 feet from the E wall

Similarly, a square grid with a 1 1 (x,y) ratio was overlaid on a map of Modules J and K (first floor), and Room 240 (second floor) A 3 foot clearance from the N and E walls was given such that samples corresponding to a location having a zero would not be directly adjacent to the wall. The grid origin (0,0) is always at the NE corner, 3 feet from the N wall and 3 feet from the E wall

A random number generator was used to determine sampling coordinates. These were converted to building locations utilizing the building's dimensions. Points which landed on locations obviously inaccessible were discarded.

A total of 7 sample points were generated If at the time of sampling, any of the points given below are inaccessible, the Project Manager will utilize the grid and random numbers list to generate further points

Grid 1 Three sample points (plus 1 duplicate)

Consists of modules A, B, C, D, E, F, G and H, first floor

Rectangle, 1 3, dimensions 134 feet x 458 feet, where (0,0) is at the NE corner of the grid and is 3 feet from the N wall and 3 feet from the E wall of Module A

x grid distance 1 unit = 76 feet, 4 inches y grid distance 1 unit = 67 feet, 0 inches

Random coordinates from Rectangle 1 3 Random Numbers List

Coordinate 1 (2,0) translates to (152 feet 8 inches, 0 feet) It is on the NW corner of Module A, 3 feet from the N wall and 3 feet from the W wall

Coordinate 2 (2,5) translates to an inaccessible location and is discarded

Coordinate 3 (0,2) translates to (0 feet, 134 feet) It is along the E wall of Module C. It is 3 feet from the E wall, and 18 feet from the N wall

Coordinate 4 (2,1) translates to (152 feet 8 inches, 67 feet). It is along the W wall of Module B. It is 9 feet from the N wall and 3 feet from the W wall.

Grid 2 One sample point

Consists of modules J and K, first floor, with a 3 foot clearance from all walls

Square, 1 1, dimensions 90 feet x 90 feet, where (0,0) is at the NE corner of the grid and is 3 feet from the N wall and 3 feet from the E wall of Module J

x grid distance 1 unit = 18 feet, 0 inches y grid distance 1 unit = 18 feet, 0 inches Survey Area: 707 Cluster | Survey Unit N/A

Building 707

Survey Unit Description

Characterization Package for B-707 Cluster

Random coordinates from Square 1 1 Random Numbers List

Coordinate 1 (5,2) translates to (90 feet, 36 feet) It is along the W wall of Module J. It is 3 feet from the W. wall and 36 feet from the N wall

Grid 3. Two sample points

Consists of the Rooms 200, 210 and 220 on the second floor, with a 3 foot clearance from all walls Rectangle, 1 3, dimensions 134 feet x 458 feet, where (0,0) is at the NE corner of the grid and is 3 feet from the N wall and 3 feet from the E wall of Room 200

x grid distance 1 unit = 76 feet, 4 inches y grid distance 1 unit = 67 feet, 0 inches

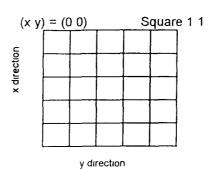
- Coordinate 5 (0,2) translates to (0 feet, 134 feet) It is 3 feet from the E wall and 137 feet from the N wall of Room 200
- Coordinate 6 (1,0) translates to (76 feet 4 inches, 0 feet) It is 79 feet 4 inches from the E wall and 3 feet from the N wall of Room 200 (i.e., between Plenum 101 and the N wall)

Grid 4 One sample point

Consists of Room 240 on the second floor, with a 3 foot clearance from all walls Square, dimensions 90 feet x 90 feet, where (0,0) is at the NE corner of the grid and is 3 feet from the N wall and 3 feet from the E wall of Room 240

x grid distance 1 unit = 18 feet, 0 inches y grid distance 1 unit = 18 feet, 0 inches

Coordinate 2 (3,0) translates to (54 feet, 0 feet) It is along the N wall of Room 240. It is 3 feet from the N wall and 54 feet from the E wall



(x,y)) = (0	(0,0	Rec	tang	e 1 3	3_(x,y	ratio)
'		v dire	ction				

GENERAL

x direction

For the area consisting of Modules J and K and for Room 240 choose the Square 1.1

For the areas consisting of Modules A through H and Rooms 200 through 220 choose the Rectangle 1 3

DIRECTIONS

- 1) Assign (0 0) to the NE corner of the sampling area 3 feet from the N wall and 3 feet from the E wall
- 2a) For Squares measure x or y distance in sampling area and divide by 5 to attain distance between grid points
- 2b) For Rectangular areas measu

measure x distance and divide by 2 to attain distance between gnd points

1 3 width to length measure y distance and divide by 6 to attain distance between grid points

- 3) Choose the "Random Number Table" that corresponds with the gnd type used
- 4) Use the first number pair (x y coordinates) that can be physically located and sampled

Note If a coordinate value is inaccessible go to the next coordinate

value on the table Continue the sequence until the required quantity of samples is taken

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RANDOM NUMBERS GENERATED FOR D&D NONRAD SAMPLE LOCATIONS

GRID TYPE

24	u	9	ro
Ju	u	а	

OKID I IF	L			
Square				
coordina	ate value			
(x)	(y) 2			
5	2			
3 4 1	0 3 0 2 5			
4	3			
1	0			
4	2			
3	5			
3	1			
4				
3 4 4	2 1 0 3 3 4			
4	<u> </u>			
4 0 2	- 0			
0	3			
2	3			
3 1 5				
1	3			
5	4			
4	3			
2	3			
4 2 0	1			
0	3 3 1 1			
0	5			
1	5			
4	5 1 2			
2	2			
3	0			
3 1 3	0 3 5 4			
3	5			
4	3			
4	4			
5	-			
	0			
2	3			
2	0			
2 0	1			
	0 1 2 1			
3	1			
0	5			
4	4			
1	1			
1	5			
	3			
4	3			
4	4			
4 4 4 3 3 5	3 3 4 5 2 0			
3	$\frac{3}{2}$			
	3			
	ا			

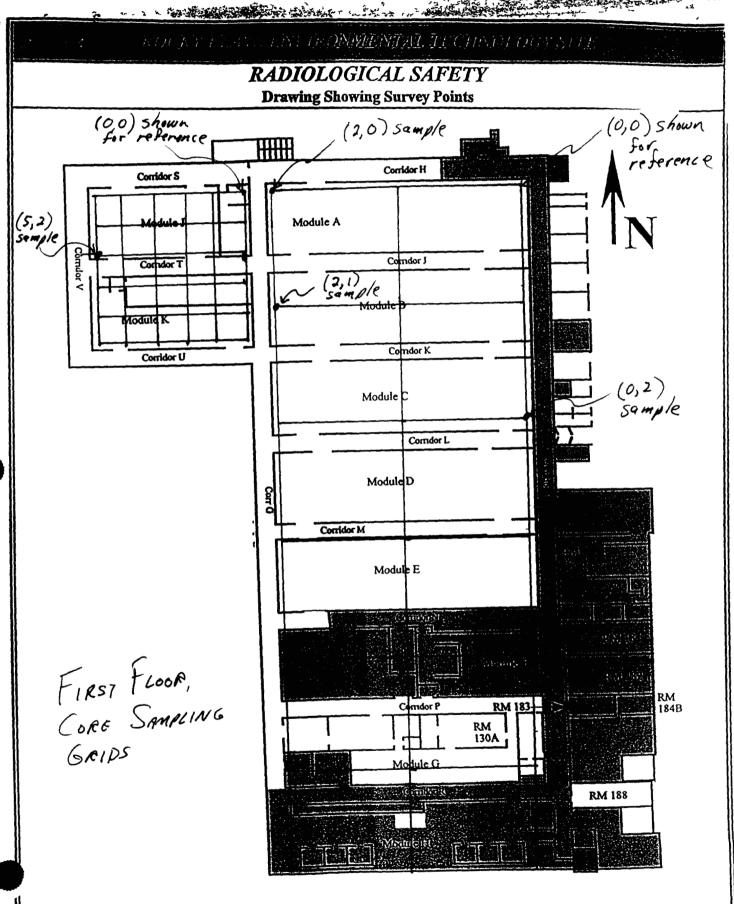
Rectangle 1 2				
coordinate value				
(x) 0	(y) 0			
0	0			
2	4			
1	0			
11	3			
0	2			
0	0			
0	1			
1	4			
1				
0	3			
0	1			
1	1 2			
0	2			
0 2 0 0 2 2 2 2 2 2	0 3 3 3 2 4 2 2 0			
0	3			
0	3			
2	3			
2	2			
2	4			
2	2			
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0	1			
0	1			
	0			
1	1			
2	1			
0	1 1			
0	2			
0	1			
2	4			
1				
1	<u>3</u>			
1 1 2	3			
0				
1	2			
0	4			
2	1			
1 0 2 0 2 1	3			
2	1			
1	4			
0	4 2 4 1 3 1 4			

Rectangle 1 3

coordinate value			
(x)	(y)		
2	0		
2	5		
0	2		
2	1		
0	2		
1	0		
2	0		
2	5		
1	5		
1	6		
0	1		
0	6		
1	4		
0	0		
 	6		
1	3		
	2		
2	3		
1	0		
 	5		
	0		
<u> </u>	0		
2	<u> </u>		
2			
1	5		
1	0		
0	2		
2	4		
2	2		
1	4		
2	1		
0	4		
1	5		
2	0		
1	6		
(x) 2 2 0 1 2 0 1 2 1 0 0 1 1 0 0 1 2 1 2 1	(y) 0 5 2 1 2 0 0 5 6 1 6 4 0 6 3 2 3 0 5 0 6 2 5 0 0 6 2 4 1 4 0 6 2 1 1 1 1 1 1 1 1 1 1 1 1 1		
2	2		
0	1		
0	0		
0	5		
1	1		
0	4		
0	0		
1	6		
0	1		
2	6		

Rectangle 14

Rectangle 1 4					
coordinate value (x) (y)					
(x)	(y)				
2	1				
1	8 5				
2	5				
0	1				
2	1 8				
1	8				
0	6				
0	3				
2	2				
2 1 2 0 2 1 0 0 2 0 1 0 1 2 0 0 2 0 1 0 0 2 0 0 0 0	4				
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2	3				
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0	<u> </u>				
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0	6				
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2	8				
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0 2 0 0 2 2 2	5 4 0 4 2 0 2				
1	2				



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DOES NOT CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION

Reviewing

Official: J. A. NESHEIM EMOBO Classinhamo Office 10-09-08 SECOND FLOOR, CORE SAMPLING SPIDS (1,0) sample 2 3 (11) (Ex= IN FOR PUBLIC DISSEMINATION FU-ZONEZ PROTICES
PL ZONE I PERSONS
ICATHARAR 34/466

Survey Area: 707 Cluster Survey Unit: N/A Building 707

Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster	Survey Unit N/A	Building 707
Survey Unit Descriptio Characterization Package for B-70		
Characterization Fackage for B-70	77 Cluster	

As	Asbestos Sampling Performed By				
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date		
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date		

bestos Sample Pre/Post and Sample Release Surveys Performed By				
RCT Printed Name	Employee #	RCT Signature	Date	
RCT Printed Name	Employee #	RCT Signature	Date	

Asbestos Sample Pre/Post and Sample Release Surveys Reviewed By			
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date

Survey Area: 707 Cluster	Survey Unit N/A	Building 707	
Survey Unit Description			
Characterization Package for B-70	7 Cluster		

Beryllium Sampling Performed By				
I H Technician Printed Name	Employee #	I H Technician Signature	Date	
I H Technician Printed Name	Employee #	I H Technician Signature	Date	
1 H Technician Printed Name	Employee #	I H Technician Signature	Date	

Berylliun	Beryllium Sample Release Surveys Performed By				
RCT Printed Name	RCT Printed Name Employee # RCT Signature Date				
RCT Printed Name	Employee #	RCT Signature	Date		

Beryllium Sample Release Survey Reviewed By				
Rad Ops Supervisor Printed Name				

Survey Area: 707 Cluster	Survey Unit: N/A	Building 707				
Survey Unit Description						
Characterization Package for B-707	Characterization Package for B-707 Cluster					

Concrete Sampling Performed By				
Sampling Technician Printed Name	Employee #	Sampling Technician Signature	Date	
Sampling Technician Printed Name	Employee #	Sampling Technician Signature	Date	
Sampling Technician Printed Name	Employee #	Sampling Technician Signature	Date	

Concrete Sampling Pre/Post and Sample Release Surveys Performed By			
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

Concrete Sampling Pre/Post and Sample Release Survey Reviewed By				
Rad Ops Supervisor Printed Name				

Survey Area: 707 Cluster | Survey Unit: N/A

Building 7078

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Building 707S - Oil storage shed

Radiological Contaminants of Concern U. Pu

Non-Radiological Contaminants of Concern Asbestos

Special Support Requirements

Ladder, scaffolding, or man-lift CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel. Refer to Activity Hazards Analysis and 3-PRO-165-RSP-07 02. "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team DQO's and data evaluation requirements are covered in the Decontamination and Decommissioning Characterization Protocol, MAN-077-DDCP

Survey Area: 707 Cluster Survey Unit. N/A Building 7078
Survey Unit Description

Characterization Package for B-707 Cluster

SAMPLING AND SURVEY INSTRUCTIONS

Minimum Survey & Sample Measurement Requirements				
Measurement	Amount & Type	Comments		
Media samples for asbestos analysis	2 media samples, SEE NOTES 1 AND 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling and analysis SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure, Sampler SHALL provide a map or sketch of precise sample locations and media (i.e., show pipes, ducts, etc)		

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling log. In order that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arlan Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*

Survey Area: 707 Cluster Survey Unit: N/A Building 707 S
Survey Unit Description
Characterization Package for B-707 Cluster

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit: N/A	Building	707 S	
Survey Unit Description Characterization Package for B-70				

Asbestos Containing Material Inventory Worksheet

Building Number Pipe insulation	_Room Number	_Date	_
Туре		Linear/sq	ft Fitting count
Type		Linear/sq	ft Fitting count
Туре	-	Linear/sq	ft Fitting count
Туре		Linear/sq	ft Fitting count
Duct insulation			
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Other			
		<u>,</u>	
SURFACE INVENTORY			
LocationDesc	ription		Sq ft
LocationDesc	ription		Sq ft
LocationDesc	ription		Sq ft
LocationDesc	ription		Sq ft
MISCELLANEOUS INVENTO	ORY		
LocationDesc	ription		Sq ft
LocationDesc	ription		Sq ft
LocationDesc	cription		Sq ft
LocationDesc	cription		Sq ft
PREPARED BY		DATE	
SIGNATURE			

Survey Area: 707 Cluster		Building	707	5
Survey Unit Description Characterization Package for B-7	on '07 Cluster			
	Asbestos Sampling Data Sh	eet		
Job #	Name		Date	<u> </u>
General Description of building	g/area			
Sample Number	Sample Description	and Location		
				<u></u>
				· -
				
PREPARED BY	DATE _			

SIGNATURE

Survey Area: 707 Cluster Survey Unit: N/A Building 707S

Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster	Survey Unit N/A	Building 7078					
Survey Unit Description	Survey Unit Description						
Characterization Package for B-70	Characterization Package for B-707 Cluster						

Asbestos Sampling Performed By			
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date

Asbestos Sample P	re/Post and Sam	ple Release Surveys	Performed By
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

Asbestos Sample Pre/Post and Sample Release Surveys Reviewed By			
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date

Survey Area: 707 Cluster | Survey Unit: N/A

Building 707T

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

707T Tomographic gamma scanner system trailer (East of 707)

Radiological Contaminants of Concern U, Pu

Non-Radiological Contaminants of Concern Asbestos

Special Support Requirements

Ladder, scaffolding, or man-lift CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel Refer to Activity Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team DQO's and data evaluation requirements are covered in the Decontamination and Decommissioning Characterization Protocol, MAN-077-DDCP

Survey Area: 707 Cluster Survey Unit: N/A Building 707T
Survey Unit Description

Characterization Package for B-707 Cluster

SAMPLING AND SURVEY INSTRUCTIONS

Measurement	Amount & Type	Comments
Media samples for asbestos analysis	3 media samples including thermal systems insulation, surfacing materials, and floor tile/mastic SEE NOTES 1 AND 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure, Inspection will determine precise sampling locations based upon accessibility Sampler SHALL provide a map or sketch of precise sample locations and media (i.e., show pipes, ducts, etc.)

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling log. In order that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arlan Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*

Survey Area: 707 Cluster Survey Unit: N/A Building 707 T

Survey Unit Description
Characterization Package for B-707 Cluster

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit: N/A	Building	707	T	
Survey Unit Description Characterization Package for B-70					

Asbestos Containing Material Inventory Worksheet

Building Number Pipe insulation	Room Number	Date	
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq_ft	Fitting count
Duct insulation			
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Other		· · · · · · · · · · · · · · · · · · ·	
SURFACE INVENTO	RY		
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
MISCELLANEOUS II	VENTORY		
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
PREPARED BY		DATE	
SIGNATURE			

Survey Area: 707 Cluster	Survey Unit N/	A Build	ling 707	T
Survey Unit Description Characterization Package for B-70				

	Asbestos Sampling Data Sheet		
Job#	Name		Date
General Description of bu	uilding/area		
Sample Number	nple Number Sample Description and Location		
	<u>, </u>		
		DATE	
PREPARED BY		DATE	_
SIGNATURE			

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Survey Area: 707 Cluster Survey Unit: N/A Building 707T
Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Building 707T	
_	Building 707T

Asbestos Sampling Performed By			
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date

Asbestos Sample P	re/Post and Sam	ple Release Surveys	Performed By
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

Asbestos Sample Pre/Post and Sample Release Surveys Reviewed By			Reviewed By
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date

Survey Area: 707 Cluster | Survey Unit: N/A

Building 708

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Building B-708 Air Compressor Building

Radiological Contaminants of Concern U. Pu

Non-Radiological Contaminants of Concern Asbestos

Special Support Requirements

Ladder, scaffolding, or man-lift CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel. Refer to Activity Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team DQO's and data evaluation requirements are covered in the Decontamination and Decommissioning Characterization Protocol, MAN-077-DDCP

Survey Area: 707 Cluster | Survey Unit: N/A | Building 708

Survey Unit Description

Characterization Package for B-707 Cluster

SAMPLING AND SURVEY INSTRUCTIONS

Minimum Survey & Sample Measurement Requirements		
Measurement	Amount & Type	Comments
Media samples for asbestos analysis	3 media samples including thermal systems insulation and surfacing materials SEE NOTES 1 AND 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure, Inspection will determine precise sampling locations based upon accessibility Sampler SHALL provide a map or sketch of precise sample locations and media (i.e., show pipes, ducts, etc)

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling log. In order that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arlan Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*

	708					
Survey Unit Description						

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit: N/A	Building	708	
Survey Unit Description Characterization Package for B-70				

Asbestos Containing Material Inventory Worksheet

Building Number Pipe insulation	Room	Number	Date	
Туре			Linear/sq ft	Fitting count
Туре			Linear/sq ft	Fitting count
Туре			Linear/sq_ft	Fitting count
Туре			Linear/sq ft	Fitting count
Duct insulation				
Туре		_Duct Size/app _		Sq ft
Туре		_Duct Size/app _		Sq ft
Туре		_Duct Size/app _		Sq ft
Туре		_Duct Size/app _		Sq ft
Other		· · · · · · · · · · · · · · · · · · ·		
SURFACE INVENTO	RY			
Location	Description _			Sq ft
Location	Description _			Sq ft
Location	Description _			Sq ft
Location	Description _			Sq ft
MISCELLANEOUS IN	NVENTORY			
Location	Description _			Sq ft
Location	Description _	· · · · · · · · · · · · · · · · · · ·		Sq ft
Location	Description _			Sq ft
Location	Description _			Sq ft
PREPARED BY			DATE	
SIGNATURE				

Survey Area: 707 Cluste	r Survey Unit: N/A	Building	708			
Survey Unit Description Characterization Package for B-707 Cluster						
Characterization Fackage to B	Characterization Package for B-707 Cluster					
	Asbestos Sampling Data Sl	reet				
Job#	Name		Date			
General Description of buildi	ng/area					
Sample Number	Sample Description	and Location				
			1			
PREPARED BY	DATE					

SIGNATURE

Survey Area: 707 Cluster Survey Unit N/A Building 708

Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster	Survey Unit N/A	Building 708	
Survey Unit Descriptio Characterization Package for B-70			

Asbestos Sampling Performed By			
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date

Asbestos Sample Pre/Post and Sample Release Surveys Performed By					
RCT Printed Name	Employee #	RCT Signature	Date		
RCT Printed Name	Employee #	RCT Signature	Date		

Asbestos Sample Pre/Post and Sample Release Surveys Reviewed By				
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date	

Survey Area: 707 Cluster | Survey Unit. N/A

Building 7085

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Building 708S - Skid mounted breathing air compressor, NW of B-708

Non-Radiological Contaminants of Concern Asbestos

Special Support Requirements

Ladder may be required CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

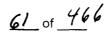
Fall protection is required for work above 6 ft Respiratory protection at the discretion of IH Access to roofs, stairs, or elevated structures may require additional approvals from security personnel Refer to Activity Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team. DQO's and data evaluation requirements are covered in the *Decontamination* and *Decommissioning Characterization Protocol*, MAN-0,77-DDCP



Survey Area: 707 Cluster Survey Unit: N/A Building 708S

Survey Unit Description

Characterization Package for B-707 Cluster

SAMPLING AND SURVEY INSTRUCTIONS

Measurement	Amount & Type	Comments
Media samples for asbestos analysis	Sampling at the discretion of asbestos inspector	Sampler SHALL be a CDPHE Certified Asbestos Inspector, If conducted, sampling SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure Sampler SHALL provide a map or sketch of precise sample locations and media (i e , show pipes, ducts, etc) if samples are taken

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling log. In order that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2. A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arian Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*

Survey Area: 707 Cluster	Survey Unit' N/A	Building	708 S			
Survey Unit Description						
Characterization Package for B-70	7 Cluster					

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit	N/A	Building	708	S
Survey Unit Description Characterization Package for B-70					

Asbestos Containing Material Inventory Worksheet

Building Number Pipe insulation	Room Number	Date	
Туре		Linear/sq_ft_	Fitting count
Туре		Linear/sq_ft_	Fitting count
Туре		Linear/sq_ft_	Fitting count
Туре		Linear/sq_ft_	Fitting count
Duct insulation			
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app	······································	Sq ft
Other			
SURFACE INVENTOR	Υ		
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
MISCELLANEOUS INV	ENTORY		
Location	Description		Sq ft
Location	Description		Sq ft
Location			Sq ft
Location			Sq ft
PREPARED BY		DATE	
SIGNATURE		_	

Survey Area: 70	7 Cluster	Survey Ur	nit N/A	Building	708 5	
Survey Unit Description Characterization Package for B-707 Cluster						
		Asbestos S	ampling Data	Sheet		
Job#Name			Date			
General Description	of building/a					
Sample Number		Sam	ple Description	on and Location		

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PREPARED BY			DAT	Έ		

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SIGNATURE

Survey Area: 707 Cluster Survey Unit. N/A Building 708S

Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster	Survey Unit: N/A	Building 708S			
Survey Unit Description					
Characterization Package for B-70	77 Cluster				

Asbestos Sampling Performed By				
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date	
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date	

Asbestos Sample Pre/Post and Sample Release Surveys Performed By					
RCT Printed Name	Employee #	RCT Signature	Date		
RCT Printed Name	Employee #	RCT Signature	Date		

Asbestos Sample Pre/Post and Sample Release Surveys Reviewed By					
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date		

Survey Area: 707 Cluster Survey Unit: N/A Building 711

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Building 711 Cooling Tower

Radiological Contaminants of Concern U, Pu

Non-Radiological Contaminants of Concern Asbestos, RCRA Metals

Special Support Requirements

Ladder, scaffolding, or man-lift Media samplers to take paint samples from floors and wood samples from slats CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

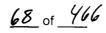
Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel. Refer to Activity Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure. Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable.

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team. DQO's and data evaluation requirements are covered in the Decontamination and Decommissioning Characterization Protocol, MAN-077-DDCP



Survey Area: 707 Cluster | Survey Unit N/A | Building 711

Survey Unit Description

Characterization Package for B-707 Cluster

SAMPLING AND SURVEY INSTRUCTIONS

Minimum Survey & Sample Measurement Requirements		
Measurement	Amount & Type	Comments
Media samples for asbestos analysis	6 media samples on thermal systems insulation and surfacing materials SEE NOTES 1 AND 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure, Inspection will determine precise sampling locations based upon accessibility
Bulk wood samples for RCRA metals analysis (Potential for Cr- based fungicide in wood)	3 bulk samples plus 1 duplicate, using either coring tool or chisel, SEE NOTES 1 AND 2	Sampling and analysis SHALL be performed according to PRO-488-BLCR, <i>Bulk Solids and Liquids Characterization Procedure</i> , Samples will be analyzed for TCLP metals (RCRA codes D004-D011) pursuant to ASD standards by EPA SW-846 Method 1311, "Toxicity Characteristic Leaching Procedure"
Bulk sludge samples for RCRA metals analysis (Potential for Cr- based fungicide in sludge)	4 bulk samples plus 1 duplicate, using scoopula or trowel, Utilize same RIN numbers and locations as sludge samples for isotopics described in radiological survey instructions section of this Characterization Package, SEE NOTES 1 AND 2	Sampling and analysis SHALL be performed according to PRO-488-BLCR, <i>Bulk Solids and Liquids Characterization Procedure</i> , Samples will be analyzed for TCLP metals (RCRA codes D004-D011) pursuant to ASD standards by EPA SW-846 Method 1311, "Toxicity Characteristic Leaching Procedure"

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling log. In order that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arlan Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01 *Unrestricted Release of Property, Material, Equipment, and Waste*

Survey Area: 707 Cluster Survey Unit N/A Building 7/1
Survey Unit Description
Characterization Package for B-707 Cluster

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit N/A	Building	7//	-
Survey Unit Descriptio Characterization Package for B-70				

Asbestos Containing Material Inventory Worksheet

Building Number Pipe insulation	Room Number	Date	_
Туре		Lınear/sq	ft Fitting count
Туре		Linear/sq	ft Fitting count
Туре		Lınear/sq	ft Fitting count
Туре		Linear/sq	ft Fitting count
Duct insulation			
Туре	Duct Size/a	арр	Sq ft
Туре	Duct Size/a	арр	Sq ft
Туре	Duct Size/a	арр	Sq ft
Туре	Duct Size/a	арр	Sq ft
Other			
SURFACE INVENTOR	Υ		
Location			Sq ft
Location	Description		Sq ft
Location			Sq ft
Location	Description		Sq ft
MISCELLANEOUS INV	ENTORY		
Location	Description		Sq ft
Location			Sq ft
Location	Description		Sq ft
Location			Sq ft
PREPARED BY		DATE	
SIGNATURE			

Survey Area: 707 Cluster	Survey Unit N/A	Building	7//	
Survey Unit Description Characterization Package for B-707 Cluster				
	Asbestos Sampling Data Sh	eet		
Job #	Name		Date	
General Description of building	ng/area			
Sample Number	Sample Description	and Location		
PREPARED BY	DATE			

SIGNATURE

Survey Area: 707 Cluster	Survey Unit N/A	Building 711	
Survey Unit Descriptio	n		
Characterization Package for B-70	7 Cluster		

METALS SAMPLING LOG SHEET FOR SLUDGE AND WOOD CHIP SAMPLING

Metals Sample Log

DATE	EMPLOYEE #	SAMPLER

(gm)	condition of area wet, presence of debris, etc , difficulties in sample collection)	(4) Paint	Number	
collected	(color, type of media wood, concrete, etc., type of surface steel, tile, etc.,	(3) Sludge	Room	Number
sample	Description	(2) Dust	and	Sequence
Mass of		(1) Media	Bldg	Sample

Survey Area: 707 Cluster Survey Unit: N/A Building 711
Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster	Survey Unit. N/A	Building 711	
Survey Unit Description			
Characterization Package for B-70	7 Cluster		

Asbestos Sampling Performed By			
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date

Asbestos Sample P	Asbestos Sample Pre/Post and Sample Release Surveys Performed By			
RCT Printed Name	Employee #	RCT Signature	Date	
RCT Printed Name	Employee #	RCT Signature	Date	

Asbestos Sample Pre/Post and Sample Release Surveys Reviewed By			
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date

Survey Area: 707 Cluster Survey Unit N/A	Building 711
Survey Unit Description	
Characterization Package for B-707 Cluster	

Bulk Wood Chip Sampling Performed By			
Sampling Technician Printed Name	Employee #	Sampling Technician Signature	Date
Sampling Technician Printed Name	Employee #	Sampling Technician Signature	Date
Sampling Technician Printed Name	Employee #	Sampling Technician Signature	Date

Bulk Wood Chip Sampling Pre/Post and Sample Release Surveys Performed By			
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

Bulk Wood Chip Sampling Pre/Post and Sample Release Survey Reviewed By			
Rad Ops Supervisor Printed Name			

Survey Area: 707 Cluster	Survey Unit: N/A	Building 711	
Survey Unit Description			
Characterization Package for B-70	7 Cluster		

Bulk Sludge Sampling Performed By			
Sampling Technician Printed Name	Employee #	Sampling Technician Signature	Date
Sampling Technician Printed Name	Employee #	Sampling Technician Signature	Date
Sampling Technician Printed Name	Employee #	Sampling Technician Signature	Date

Bulk Sludge Sampling Pre/Post and Sample Release Surveys Performed By			
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

	_	npling Pre/Post and Survey Reviewed By	
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date

Survey Area: 707 Cluster | Survey Unit: N/A | Building 711A

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Building 711A Emergency Diesel Pump for 711 Cooling Tower

Radiological Contaminants of Concern U, Pu

Non-Radiological Contaminants of Concern Asbestos

Special Support Requirements

Ladder, scaffolding, or man-lift CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel. Refer to Activity. Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team. DQO's and data evaluation requirements are covered in the Decontamination and Decommissioning Characterization Protocol, MAN-077-DDCP

Survey Area: 707 Cluster | Survey Unit N/A | Building 711A

Survey Unit Description

Characterization Package for B-707 Cluster

SAMPLING AND SURVEY INSTRUCTIONS

Minimum Survey & Sample Measurement Requirements		
Measurement	Amount & Type	Comments
Media samples for asbestos analysis	2 samples on thermal systems insulation, SEE NOTES 1 AND 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure Sampler SHALL provide a map or sketch of precise sample locations and media (i.e., show pipes, ducts, etc)

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling locations given that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arlan Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*

Survey Area: 707 Cluster Survey Unit N/A Building 7/1 A
Survey Unit Description
Characterization Package for B-707 Cluster

AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit N/A	Building	711 A	
Survey Unit Description Characterization Package for B-70		•		

Asbestos Containing Material Inventory Worksheet

Building Number Pipe insulation	Room Number	Date	
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq_ft	Fitting count
Duct insulation			
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Other			
SURFACE INVENTO	DRY		
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
MISCELLANEOUS I	NVENTORY		
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
PREPARED BY		DATE	
SIGNATURE			

Survey Area: 707 Cluster	Survey Unit: N/A	Building 7/1 A	
Survey Unit Description Characterization Package for B-7	Survey Unit Description Characterization Package for B-707 Cluster		
	Asbestos Sampling Data Sh	reet	
Job #	Name	Date	
General Description of building	g/area		
Sample Number	Sample Description	and Location	
PREPARED BY	DATE_		
SIGNATURE			

Survey Area: 707 Cluster Survey Unit N/A Building 711A

Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster Survey Unit N/A	Building 711A
Survey Unit Description	
Characterization Package for B-707 Cluster	

As	bestos Samp	ling Performed By	
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date

Asbestos Sample P	re/Post and Sam	ple Release Surveys	Performed By
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

Asbestos Sample Pre	e/Post and Sa	ımple Release Surveys R	eviewed By
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date

Survey Area: 707 cluster | Survey Unit: N/A | Building 718

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Building 718 Pump House for Cooling Tower 711

Radiological Contaminants of Concern U. Pu

Non-Radiological Contaminants of Concern Asbestos

Special Support Requirements

Ladder, scaffolding, or man-lift CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel. Refer to Activity. Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team. DQO's and data evaluation requirements are covered in the Decontamination and Decommissioning Characterization Protocol, MAN-Q77-DDCP

Survey Area: 707 Cluster Survey Unit: N/A Building 718
Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY INSTRUCTIONS

Minimum Survey & Sample Measurement Requirements			
Measurement	Amount & Type	Comments	
Media samples for asbestos analysis	3 samples on thermal systems insulation and structural media, SEE NOTES 1 AND 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure Sampler SHALL provide a map or sketch of precise sample locations and media (i.e., show pipes, ducts, etc)	

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling locations go in order that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arlan Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*

Survey Area: 707 Cluster Survey Unit: N/A Building 7/8
Survey Unit Description
Characterization Package for B-707 Cluster

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit N/A	Building	718
Survey Unit Description Characterization Package for B-70			

Asbestos Containing Material Inventory Worksheet

Building Number Pipe insulation	Room Number	Date	
Туре		Linear/sq ft	Fitting count
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq ft	Fitting count
Туре		Linear/sq ft	Fitting count
Duct insulation			
Туре	Duct Size/ap	p	Sq ft
Туре	Duct Size/ap	ρ	Sq ft
Туре	Duct Size/ap	ρ	Sq ft
Туре	Duct Size/ap	ρ	Sq ft
Other			
SURFACE INVENTOR	RΥ		
Location			Sq ft
Location	Description		Sq ft
Location			Sq ft
Location			Sq ft
MISCELLANEOUS IN	VENTORY		
Location			Sq ft
Location			Sq ft
Location			Sq ft
Location	_Description		Sq ft
PREPARED BY		DATE	
SIGNATURE		~	

Survey Area: 70	07 Cluster	Survey Unit	N/A	Building	718
Survey Unit De Characterization Pack	scriptio	n			
Characterization Pack	age 101 B-70				
		Asbestos Sam	plıng Data Sh	eet	
Job #		Name			Date
General Description	of building	/area			
Sample Number		Sample	Description a	ınd Location	
					· · · · · · · · · · · · · · · · · · ·
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·					
	L				
PREPARED BY			DATE _		

SIGNATURE

Survey Area: 707 Cluster Survey Unit N/A Building 718

Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster	Survey Unit: N/A	Building 718	
Survey Unit Description	n		
Characterization Package for B-70	7 Cluster		

As	bestos Samp	ling Performed By	
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date

Asbestos Sample P	re/Post and Sam	ple Release Survey	s Performed By
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

Asbestos Sample Pre	e/Post and S	ample Release Surveys	Reviewed By
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date

Survey Area: 707 Cluster | Survey Unit: N/A

Building 731

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Building 731 Process Waste Pit, B-707 Plenum Deluge

Radiological Contaminants of Concern U, Pu

Non-Radiological Contaminants of Concern Asbestos

Special Support Requirements

Ladder, scaffolding, or man-lift CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel Refer to Activity Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team DQO's and data evaluation requirements are covered in the Decontamination and Decommissioning Characterization Protocol, MAN-077-DDCP

Survey Area: 707 Cluster Survey Unit: N/A Building 731
Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY INSTRUCTIONS

Measurement	Amount & Type	Comments
Media samples for asbestos analysis	3 media samples, SEE NOTES 1 AND 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure Sampler SHALL provide a map or sketch of precise sample locations and media (i.e., show pipes, ducts, etc)

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling log. In order that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arlan Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*

NOTE 3 Where locations for paint chip sampling are in an area that requires intact paint covering as part of secondary containment, sample locations will be repainted as required by building management

Survey Area: 707 Cluster Survey Unit: N/A Building 731
Survey Unit Description
Characterization Package for B-707 Cluster

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit: N/A	Building	731
Survey Unit Description Characterization Package for B-70			

Asbestos Containing Material Inventory Worksheet

Building Number Pipe insulation	Room Number	Date	
Туре		Linear/sq_ft Fit	ting count
Туре		Linear/sq_ft Fit	ting count
Туре		Linear/sq_ft Fit	ting count
Туре		Linear/sq_ft Fit	ting count
Duct insulation			
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Other			
SURFACE INVENTOR	RY		
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
MISCELLANEOUS IN	IVENTORY		
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
PREPARED BY		DATE	
SIGNATURE			

Survey Area: 707 Cluster	Survey Unit: N/A	Building	731	
Survey Unit Description Characterization Package for B-70				

	Aspestos Samplir	ig Data Sneet	
Job #	Name		Date
General Description of	ouilding/area		
Sample Number	Sample De	scription and Location	
			<u></u>
		····	
PREPARED BY		DATE	
SIGNATURE		····	

Survey Area: 707 Cluster Survey Unit: N/A Building 731

Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster Sur	ey Unit: N/A	Building 731	
Survey Unit Description			
Characterization Package for B-707 Cluster			

As	Asbestos Sampling Performed By		
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date

Asbestos Sample P	sbestos Sample Pre/Post and Sample Release Surveys Performed By		
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

Asbestos Sample Pre/Post and Sample Release Surveys Reviewed By			
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date

Survey Area: 707 Cluster | Survey Unit. N/A

Building Tanks

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Tanks in 707 Cluster: 16, 206, 208-223, 284, 290, 324, and 325

Radiological Contaminants of Concern U, Pu

Non-Radiological Contaminants of Concern Asbestos

Special Support Requirements

Ladder, scaffolding, or man-lift CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel Refer to Activity Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team DQO's and data evaluation requirements are covered in the Decontamination and Decommissioning Characterization Protocol, MAN-077-DDCP

Survey Area: 707 Cluster Survey Unit: N/A	Building Tanks		
Survey Unit Description			
Characterization Package for B-707 Cluster			

SAMPLING AND SURVEY INSTRUCTIONS

Mınımum Survey & Sample Measurement Requirements		
Measurement	Amount & Type	Comments
Media samples for asbestos analysis	Sampling at the discretion of asbestos inspector, SEE NOTES 1 AND 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure Sampler SHALL provide a map or sketch of precise sample locations and media (i.e., show pipes, ducts, etc)

Survey Area: 707 Cluster | Survey Unit N/A | Building Tanks

Survey Unit Description

Characterization Package for B-707 Cluster

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling log. In order that sampling locations may be unequivocally located after sample analysis sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arlan Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*

Unit descriptions

Tank 16 #2 Diesel storage tank, replacement for Tank 290 / UST-16, northwest of B-709

Tank 206 Carbon tetrachloride storage tank (D-2), north of B-707

Tank 208 Argon storage tank, south of B-707

Tanks 209 to 212 Helium storage tanks (V-41), south of B-707

Tanks 213 to 221 Helium storage tanks (V-42), south of B-707

Tank 222 Helium tanker which supports storage tanks, south of B-707

Tank 223 Liquid nitrogen storage tank, southeast of B-707

Tank 284 Helium storage tank (V-42), south of B-707

Tank 290 Diesel tank (underground), UST-16, northwest of B-709

Tank 324 Diesel tank, supports 711A, west of B-707

Tank 325 Diesel tank, south of B-707

Survey Area: 707 Cluster Survey Unit: N/A Building TANKS

Survey Unit Description
Characterization Package for B-707 Cluster

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

Survey Area: 707 Cluster	Survey Unit N/A	Building	TANKS
Survey Unit Description Characterization Package for B-70			

Asbestos Containing Material Inventory Worksheet

Building Number _ Pipe insulation	Room Number	Date	
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq_ft	Fitting count
Туре		Linear/sq_ft	_ Fitting count
Duct insulation			
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Туре	Duct Size/app		Sq ft
Other			
SURFACE INVENT			
	Description		
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
MISCELLANEOUS	INVENTORY		
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
Location	Description		Sq ft
PREPARED BY		DATE	
SIGNATURE			

Survey Area: 707 Cluster	Survey Unit N/A	Building TANKS
Survey Unit Descriptio Characterization Package for B-70	n	
	Asbestos Sampling Data Sh	reet
Job #	Name	Date
General Description of building	/area	
Sample Number	Sample Description	and Location
PREPARED BY	DATE	

SIGNATURE

Survey Area: 707 Cluster Survey Unit: N/A Building Tanks
Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster Survey Unit N/A Building Tanks			
Survey Unit Description			
Characterization Package for B-70	7 Cluster		

Asbestos Sampling Performed By			
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date

Asbestos Sample P	re/Post and Sam	ple Release Surveys	Performed By
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

Asbestos Sample Pre/Post and Sample Release Surveys Reviewed By			
Rad Ops Supervisor Printed Name	Employee #	Rad Ops Supervisor Signature	Date

Survey Area: 707 Cluster | Survey Unit: N/A Building Valve Vaults

Survey Unit Description

Characterization Package for B-707 Cluster

CHARACTERIZATION INSTRUCTION COVER SHEET

Valve Vaults in 707 Cluster: VV007 and VV008

Radiological Contaminants of Concern U, Pu

Non-Radiological Contaminants of Concern Asbestos

Special Support Requirements

Ladder, scaffolding, or man-lift CDPHE-certified asbestos inspector for inspections and sampling RCTs to support sampling operations

Special Safety Precautions

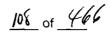
Fall protection is required for work above 6 ft. Respiratory protection at the discretion of IH. Access to roofs, stairs, or elevated structures may require additional approvals from security personnel. Refer to Activity Hazards Analysis and 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements"

Labeling Requirements

Sample containers must be labelled as described in the applicable Characterization Procedure Obtain preprinted, uniquely numbered sample labels from ASD or RLC project representative if applicable

Characterization Instruction Implementation

This survey package is ready for implementation. Adequate detail is provided to allow implementation by the sampling team. DQO's and data evaluation requirements are covered in the Decontamination and Decommissioning Characterization Protocol, MAN-077-DDCP



Survey Area: 707 Cluster Survey Unit. N/A Building Valve Vaults

Survey Unit Description

Characterization Package for B-707 Cluster

SAMPLING AND SURVEY INSTRUCTIONS

Minimum Survey & Sample Measurement Requirements		
Measurement	Amount & Type	Comments
Media samples for asbestos analysis	Sampling at the discretion of asbestos inspector, SEE NOTES 1 AND 2	Sampler SHALL be a CDPHE Certified Asbestos Inspector, Sampling SHALL be performed according to PRO-563-ACPR, Asbestos Characterization Procedure Sampler SHALL provide a map or sketch of precise sample locations and media (i.e., show pipes, ducts, etc)

NOTE 1 Due to ongoing operations within the buildings and constantly changing accessibility to different locations, precise sampling locations will be determined during pre-evolutionary briefing and walkdown, immediately prior to sample collection. Locations at which sampling would cause an unacceptable risk of spread of contamination SHALL be excluded and reasons noted in the sampling log. In order that sampling locations may be unequivocally located after sample analysis, sampling locations SHALL be documented on sample maps as well as the appropriate logs as required by the applicable characterization procedure, AND the sample location SHALL be physically marked either with a sticker or other durable marking containing the RIN, event, and bottle numbers (or if an IH sample, the IH sample number) of the sample

NOTE 2 A Property / Waste Release Evaluation (P/WRE) is required for all analytical samples to be transported offsite for analysis. However, the instructions for RCTs and Radiological Operations Foreman in the following sections may be waived if it is deemed by Radiological Engineering (Arian Moore) that no assay is required due to building history and process knowledge, per 3-PRO-141-RSP 09 01, *Unrestricted Release of Property, Material, Equipment, and Waste*

Survey Area: 707 Cluster Survey Unit. N/A Building WAVE WWTS

Survey Unit Description
Characterization Package for B-707 Cluster

ASBESTOS INVENTORY WORKSHEET AND SAMPLING DATA SHEET

	er Survey Unit N/A	Building VALVE VAVITS
Survey Unit Descript Characterization Package for B	tion 3-707 Cluster	
	Asbestos Sampling Date	ta Sheet
Job #	Name	Date
General Description of build	ing/area	
Sample Number	Sample Descript	tion and Location
	<u> </u>	
	The state of the s	
PREPARED BY	D	ATE

<u>III</u> of 466

SIGNATURE

urvey Area: 707 Cluster Survey Unit N/A Building VALVE VAULTS			
Survey Unit Descriptio Characterization Package for B-70			

Asbestos Containing Material Inventory Worksheet

Building Number _ Pipe insulation	Room	Number	Date	
Туре			Linear/sq_ft	Fitting count
Туре			Linear/sq_ft	Fitting count
Туре			Linear/sq_ft	Fitting count
Туре			Linear/sq_ft	Fitting count
Duct insulation				
Туре		Duct Size/app _		Sq ft
Туре		Duct Size/app		Sq ft
Туре		Duct Size/app _		Sq ft
Туре		Duct Size/app _		Sq ft
Other				
SURFACE INVENT	ORY			
Location	Description _			Sq ft
Location	Description _			Sq ft
Location	Description			Sq ft
Location	Description _		Palestan	Sq ft
MISCELLANEOUS	INVENTORY			
Location	Description _			Sq ft
Location	Description			Sq ft
Location	Description _			Sq ft
Location	Description			Sq ft
PREPARED BY			DATE	
	SIGNATU	RE		

Survey Area: 707 Cluster Survey Unit: N/A Building Valve Vaults

Survey Unit Description
Characterization Package for B-707 Cluster

SAMPLING AND SURVEY SIGNATURE SHEETS

Survey Area: 707 Cluster	Survey Unit N/A	Building Valve Vaults
Survey Unit Description	n	
Characterization Package for B-70	7 Cluster	

As	bestos Samp	ling Performed By	
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date
Certified Asbestos Inspector Printed Name	Employee #	Certified Asbestos Inspector Signature	Date

Asbestos Sample P	re/Post and Sam	ple Release Surveys	Performed By
RCT Printed Name	Employee #	RCT Signature	Date
RCT Printed Name	Employee #	RCT Signature	Date

Radiological Characterization Instruction

Bldg. 707 Cluster

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	Service of British	compies									
		UNBIASED Floors/Wells	BIASED Floors/Wells <	BIASED Cellings/Walls > 2m	BIASED Equipment	UNBIASED+BIASED Floors/Walls < 2m	BIASED Cellings/Walls > 2m	BIASED Equipment			
- Control of Control o	Survey	Surface Activity		Surface Activity	Surface Activity				Media	Volumetric	Semme Gamme
Description	Area	Measurements	Mea	Measurements	Measurements	Surface Scanning	Surface	Surface Scanning	Samples	Samples	Scans
Znd Floor /U/	4	30	52	8	45	55	0	0	٥	0	0
Znd 7:100r 707	B	8	52	30	45	55	0	0	0	0	0
2nd Floor 707	O	30	52	30	45	55	0	0	0	0	6
2nd Floor 707	۵	30	35	e	45	65	0	0	-	c	
2nd Floor 707	w	30	35	8	45	65	0		-	0	
2nd Floor 707	u.	30	35	8	45	65			,		
2nd Floor 707	O	ဧ	52	8	45	55	0			0	9
2nd Floor 707	I	30	25	S.	AR	3			,		9
2nd Floor 707	-	30	25	30	45	3 %			0	0	9
2nd Floor 707	7	30	52	30	45	35			0	0	٥
2nd Floor 707	×	90	25	30	45	2					
2nd Floor 707	 -	90	25	8	45	35				0	>
Modules/corridors	Σ	45	17	90	40	3	0	0			9
Modules/corridors	z	45	4	30	45	20					0
Modules/corridors	0	58	14	40	45	22					٥
Modules/corndors	۵	45		9	40	50			4		٥
Modules/corndors	o	45	7	98	40	200			•		0
Modules/corridors	œ	45	12	30	92	2.2					9
Modules/corndors	s	185	7	101	07	100			2		
Modules/corridors	-	140	17	04	40	157			2		
Corridors/RBA rooms/non RBA rooms	>	275	25	250	9	300	0		,		9
Corridors/RBA rooms/non RBA rooms	>	110	9	8	90	120			2		٥
Corridors/RBA rooms/non RBA rooms	>	105	ç	2	3 8	115			2		٥
Modules/corridors	×	50	2	16	3 4	2 6			2	0	0
Corridors/RBA rooms/non RBA rooms	 >	129	0	155	2 8	120	D IC	0	20 0	0	٥
ROOF/EXTERIOR	7	67	46	0		113		o c			
708/708S	AA	30	4	30	35	25	0		4 0		0
ROOF/EXTERIOR	88	30	24	0	0	54	0		v -	0	
	ပ္ပ	30	12	30	30	42	0		-	0	0
TANKS	00	0	0	0	88	0		18	- -	0	
711 711A 718	33	40	0	30	90	40	0	3 0			0
ROOF/EXTERIOR	H.	30	0	0	0	30				-	
ROOF/EXTERIOR	gg	30	0	0	0	30	0	0	-	0	
707T	Ŧ	30	9	8	30	36	0	0	-	0	0
ROOF/EXTERIOR	=	30	0	0	0	30	0		- c		
ROOF/EXTERIOR	Υ	30	0	0	0	30	0		-	0	
_	TOTALS	1984	582	1276	1268	2566	c	88		,	,
TOTAL NUMBER OF SURVEY AREAS=	36							3	,	,	-
TOTAL OF ALL SURFACE ACTIVITY ASUREMENTS INCLUDING EQUIPMENT=	5110									1	
TOTAL OF ALL SURFACE SCAN											
	2							_			

J S Jarvis RMRS Radiological Engineering Support Services

116/466

SURVEY PACKAGE TRACKING FORM

Package ID 99-0002		Building 707	
Survey Area A		Survey Unit N/A	
Initiator/ Date	Release Date	Validation Date	Closure Date
99 10/25/99			
William			
			·

	,		

INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	ackage ID 99-0002		Type 3		
Survey Area A		Survey Unit N/A	1	Area (m ²) 640	
				ling 707 Area is N ed contamination ar	
Survey Type			Classification		
RLC Survey X	FSS □		Class 1 □ Class	2 □ Class 3 □ 1	U nknown X
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
30	55	45	0	0	55
Building		Туре		Survey Area	
Survey Unit			Area (m²)	O	
Survey Unit Desc	cription.				
Survey Type			Classification		
RLC Survey □	FSS □		Class 1 ☐ Class	2 □ Class 3 □ 1	Jnknown □
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building		Туре		Survey Area	
Survey Unit			Area (m²)		
Survey Unit Des	cription				
Survey Type	urvey Type Classification				
RLC Survey □	FSS □		Class 1 ☐ Class	2 □ Class 3 □ U	Jnknown □
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
			<u> </u>		
Building		Туре		Survey Area	
Survey Unit			Area (m²)		
Survey Unit Desc	cription				
Survey Type			Classification		
RLC Survey 🗆	FSS □		Class 1 ☐ Class	~ ~~~~	Jnknown 🗆
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
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Rev 9/99

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	Building: 707
Survey Area: A	Survey Unit. N/A
Survey Unit Description: NORTH EAST CORNE AREA IS NORTH OF COLUMN D-4 AND EAST OF C AREAS ARE POSTED AS FIXED CONTAMINATION	OLUMN G-3 BUILDING 707 RADIOLOGICAL
Building Information:	
Survey Type Reconnaissance Level Characterization S	urvey X Final Status Survey □
Building Type Type 1 🗆 Type 2 🗖 Type 3 X	
Classification Class 1 □ Class 2 □ Class 3 □ Un	known X
Contaminants of Concern Plutonium X Uranium X	Other
Justification for Classification: N/A	
Special Support Requirements: Ladder, manla instrumentation may be required for access into	•
Special Safety Precautions: Access to overhead Review RWP requirements and surveys prior to overheads. Special security requirements for access to overhead security requirements.	entry Use caution when working in
Isolation Controls:	
Level 1 □ Level 2 □ N/A X	
Labeling Requirements: NONE	
Survey Package Implementation:	
Survey Package Closure:	, Daile
Survey Package Closure:	Dance
Survey Package Closure:) Date
Survey Package Closure:) Duit
Survey Package Closure:	, Danc
Survey Package Closure:	Duit
Survey Package Closure:	, Date

SURVEY PACKAGE SURVEY/SAMPLING INSTRUCTIONS FORM

Min Measurement Surface Activity Measurements FLOO 30 unb through 25 bias locatio - Po cc su pi - Po - N - O Re CEILI 30 bias and cer follows	North East corner of room 2 Building 707 radiological ar Imum Survey/Sampling N Number and Type PRS/WALLS < 2 meters Plasted survey points uniformly dishout the area Seed survey points at the following onts around floors adjacent to interest and adjacent to interest and select as glycol P-traps (plenums), humps, etc Doint near each airlock to the plenum ear waste drum storage The there areas of potential concern backet areas of potential concern backet glycol P-traps (plenums). RIGS/WALLS > 2 meters	SEE NOTE 3 SEE NOTE 4 ternally excessible) hydraulic tims
Min Measurement Surface Activity Measurements FLOO 30 unb through 25 bias locatio - Po cc su pi - Po - N - O Re CEILI 30 bias and cer follows	Imum Survey/Sampling N Number and Type PRS/WALLS < 2 meters Plased survey points uniformly dishout the area Sed survey points at the following onts around floors adjacent to interest and a glycol P-traps (plenums), humps, etc Point near each airlock to the plenums area areas of potential concern backer are	Teas are posted as fixed contamination areas Measurement Requirements Comments SEE NOTE 1 SEE NOTE 2 SEE NOTE 3 SEE NOTE 4 ternally accessible) anydraulic aims
Measurement Surface Activity Measurements 30 unb through 25 bias locatio - Po cc su pu - Po - N - O R CEILI 30 bias and cei followi	Number and Type PRS/WALLS < 2 meters plased survey points uniformly distribute the area sed survey points at the following ons points around floors adjacent to into the amount on taminated equipment (where action as glycol P-traps (plenums), humps, etc point near each airlock to the plenum ear waste drum storage ther areas of potential concern baccT judgement/experience INGS/WALLS > 2 meters	SEE NOTE 1 SEE NOTE 2 SEE NOTE 3 SEE NOTE 4 ternally recessible) hydraulic aims
Surface Activity Measurements 30 unb through 25 bias locatio - Po cc su pu - Po - N - O Re CEILI 30 bias and cer follows	PRS/WALLS < 2 meters plased survey points uniformly dishout the area sed survey points at the following mis points around floors adjacent to interest protection and protection as glycol P-traps (plenums), humps, etc point near each airlock to the plenument waste drum storage ther areas of potential concern bacter judgement/experience	SEE NOTE 1 SEE NOTE 2 SEE NOTE 3 SEE NOTE 4 ternally excessible) hydraulic
Measurements 30 unb through 25 bias locatio - Pe cc su pri - Pe - Ni - O Re CEILI 30 bias and cer follows	plased survey points uniformly dishout the area sed survey points at the following ons oints around floors adjacent to into intaminated equipment (where action as glycol P-traps (plenums), humps, etc oint near each airlock to the plenue ear waste drum storage ther areas of potential concern bacCT judgement/experience	SEE NOTE 2 SEE NOTE 3 SEE NOTE 4 ternally ccessible) hydraulic aims
through 25 bias locatio - Po cc su pi - Po - N - O R CEILI 30 bias and cer follows	hout the area sed survey points at the following ins oints around floors adjacent to into intaminated equipment (where ac inch as glycol P-traps (plenums), h imps, etc oint near each airlock to the plenu ear waste drum storage ther areas of potential concern ba CT judgement/experience	SEE NOTE 3 SEE NOTE 4 ternally excessible) hydraulic tims
25 bias locatio - Pe co su pri - Pe - N - O R CEILI 30 bias and cer follows	sed survey points at the following ons oints around floors adjacent to intontaminated equipment (where acid as glycol P-traps (plenums), humps, etc oint near each airlock to the plenue ear waste drum storage ther areas of potential concern bacT judgement/experience	SEE NOTE 4 ternally excessible) hydraulic tims
CEILI 30 bias and cei follows	ontaminated equipment (where action as glycol P-traps (plenums), humps, etc oint near each airlock to the plenuear waste drum storage ther areas of potential concern batCT judgement/experience	ecessible) hydraulic hims
- N - O R CEILI 30 bias and cei follow	ear waste drum storage ther areas of potential concern ba CT judgement/experience INGS/WALLS > 2 meters	
- OR CEILI 30 bias and cei followi	ther areas of potential concern ba CT judgement/experience NGS/WALLS > 2 meters	ised on
CEILI 30 bias and cei followi	CT judgement/experience NGS/WALLS > 2 meters	ised on
30 <u>bias</u> and cer follows		
and cer follows		
W	sed surveys (divided evenly betwo iling when possible) with focus of ing areas	
- W	alls behind process lines	
- Te	ops/sides of plenums	
- St	tained or discolored areas	
- A	reas around pipe or other penetra	tions
EQUII	PMENT	
	sed survey points on equipment we samples from	71th one
	quipment which has visible leaks ontained spills beneath them	or
- Sı	irvey points at exhaust ducts	
	survey points on top of overhead where locations are accessible)	i piping
	ther areas of potential concern ba CT judgement/experience	sed on

SURVEY PACKAGE SURVEY/SAMPLING INSTRUCTIONS FORM (cont)

Package ID · 99-00	002	Building	; 707		
Survey Area. A		Survey U	Unit N/A		
	ription. North East corner of room 2 imn G-3 Building 707 radiological at		or of Building 707 Area is North of Column sted as fixed contamination areas		
	Minimum Survey/Sampling I	Measuren	nent Requirements		
Measurement	Number and Type		Comments		
Surface Scanning	FLOORS/WALLS < 2 meters 55 1 m² surface scans shall be taken at location identified for surface activity measurements. Locations found above DCGL shall be documented CEILINGS/WALLS > 2 meters NONE EQUIPMENT		SEE NOTE 1 SEE NOTE 2 SEE NOTE 3 SEE NOTE 4		
	NONE				
Media Samples	NONE (2 nd Floor of 707 does not have painted	floors)			
Volumetric Samples	NONE				
Isotopic Gamma Scans	NONE				

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SURVEY PACKAGE SURVEY/SAMPLING INSTRUCTIONS FORM (cont)

Package ID: 99-0002	Building: 707
Survey Area· A	Survey Unit N/A
	and and a second as a second a

Survey Unit Description North East corner of room 200, 2nd floor of Building 707 Area is North of Column D-4 and East of Column G-3 Building 707 radiological areas are posted as fixed contamination areas

Survey/Sampling Instructions

NOTE 1 Representative surveys of the area will be taken in accordance with 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements", for the following

- Direct alpha contamination
- Direct beta contamination
- Removable alpha contamination
- Removable beta contamination
- 1m² scan measurements for alpha then beta/gamma contamination

NOTE 2 The RCT shall document the locations of all surveys performed and maintain with the survey instructions package

NOTE 3 Areas which are posted/considered High Contamination Areas (HCA's) or Airborne Radioactivity Areas (ARA's) do not require Reconnaissance Level Characterization (RLC) surveys and may be skipped

NOTE 4 Surveys in these areas may be difficult to obtain due to height and/or access limitations RCT's shall utilize best judgement as to safely accessing these areas. Survey those areas that are readily accessible through reach tools, ladders, scaffolding and/or lift systems and where proper training has been received

SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID 99-0002		Building 707		
Survey Area A		Survey Unit N/A	\	
Change #	Description		Initiator/ Date	PRE
			-	
				· · · · · · · · · · · · · · · · · · ·

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SURVEY PACKAGE VALIDATION CHECKLIST FORM

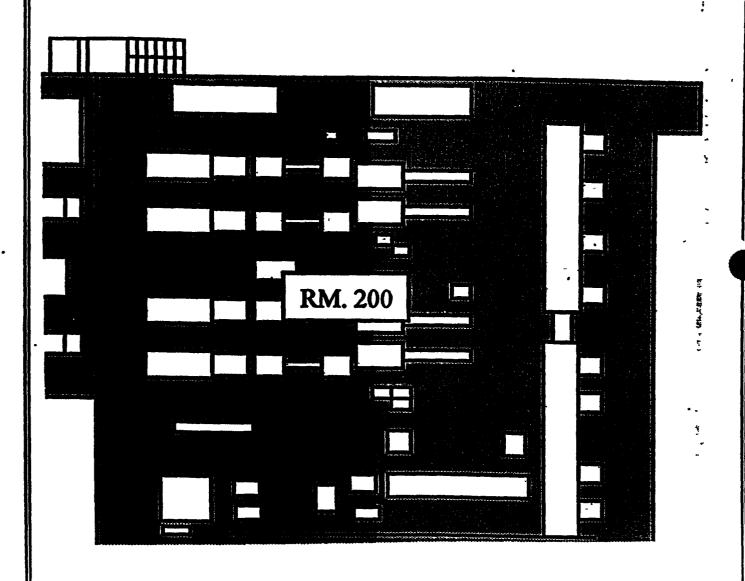
Package ID: 99-0002	Building 707			
Survey Area: A	Survey U	Jnit N/A		
Survey Type: Reconnaissance Level Characterization	Survey X	Final Status Surv	еу 🗆	
All Documentation Reviewed for Completion		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys		****		
Removable Surveys				
Media Samples				
Volumetric Samples				
All Surveys and Samples Accounted For		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
Comments	. <u> </u>			
The state of the s				
	RCT Supervisor	Signature		Date
	Project RE Sign	ature		Date
	RESS Manager	Signature		Date

	INSTRUMENT	DATA					
lfg				Survey Typ	oe:		
fodel			1	Building			
erial #	Serial #	Serial	#				
al Due	Cal Due		ue				
kg							
fficiency			ency	RWP#			
1DA			·				
				Date		Time	
Afg	Mfg	Mfg_					
Model	Model		l	RCT		/	
erial #		Serial	#	P	rint name	Signat	ure Emp
Cal Due			ue	-		Č	•
Skg				RCT		/	_/_
Efficiency		Effici	ency	P	rınt name	Signat	ture Emp
MDA				` [-
REMOVABL Alpha		DIRECT Alpha	SURVEY DIRECT	RESULTS REMOVABLE Alpha	REMOVABLE Beta	DIRECT Alpha	DIRECT Beta
Alpha DPM/100 cm 1 2	Beta ² DPM/100 cm ²	DIRECT Alpha DPM/100 cm ²	DIRECT	REMOVABLE Alpha DPM/100 cm² 26			
Alpha DPM/100 cm 1 2 3	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28 29	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Beta	Alpha	Beta
Alpha DPM/100 cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta

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RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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SURVEY PACKAGE TRACKING FORM

Package ID. 99-0002		Building 707			
Survey Area B		Survey Unit N/A			
Initiator/ Date	Release Date	Validation Date Closure I			
m/25/98					
111 1211					
	······································				

INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	0002	Building 707	Type 3			
Survey Area B Survey Unit N/A			Area (m ²) 640			
Survey Unit Description North West corner of room 200, 2 nd floor of K-4 and West of Column G-3 Building 707 radiological areas are pos						
Survey Type		- 12···	Classification			
RLC Survey X FSS □			Class 1 Class	2 □ Class 3 □ U	Jnknown X	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
30	55	45	0	0	55	
Building		Туре		Survey Area		
Survey Unit			Area (m²)			
Survey Unit Description						
Survey Type			Classification	Company of the Compan	 	
RLC Survey 🗖	FSS □		Class 1 □ Class		Jnknown 🗆	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
	1					
Building		Type·	Survey Area			
Survey Unit		-	Area (m²)			
Survey Unit Desc	cription					
Survey Type			Classification			
RLC Survey □	FSS 🗆		Class 1 Class	2 □ Class 3 □ U	Jnknown □	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
Building		Туре		Survey Area		
Survey Unit			Area (m²)		V	
Survey Unit Desc	cription					
Survey Type			Classification			
RLC Survey □	FSS 🗆		Class 1 🗆 Class	2 □ Class 3 □ U	Jnknown □	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	

SURVEY PACKAGE COVER SHEET

Package ID: 99-0002		Building. 707	
Survey Area: B	,	Survey Unit N/A	
Survey Unit Description: NORT AREA IS NORTH OF COLUMN K-4 AREAS ARE POSTED AS FIXED C	AND WEST OF	COLUMN G-3 BUILDIN	
Building Information:			
Survey Type Reconnaissance Level	Characterization S	urvey X Final Status Su	rvey 🗆
Building Type Type 1 Type 2 C	Type 3 X		
Classification Class 1 ☐ Class 2 ☐	Class 3 U	known X	
Contaminants of Concern Plutonium	X Uranium X	Other 🗆	
Justification for Classification:	N/A		
Special Support Requirements instrumentation may be required			
Special Safety Precautions: Ac Review RWP requirements and soverheads Special security requirements	surveys prior to	entry Use caution w	
Isolation Controls:			
Level 1 🗆 Level 2 🗖 N/A X			
Labeling Requirements: NONE Survey Package Implementation	··		
		1	
RESS Manager Printed Name	Employee # RES	S Manager Signature	Date
Survey Package Closure:			

SURVEY PACKAGE SURVEY/SAMPLING INSTRUCTIONS FORM

Package ID · 99-0002		Building	707		
Survey Area: B		Survey U	Unit N/A		
Survey Unit Description. North West corner of room 200, 2 Column K-4 and West of Column G-3 Building 707 radiologic areas					
	Minimum Survey/Sampling	Measuren	nent Requirements		
Measurement	Number and Type		Comments		
Surface Activity	FLOORS/WALLS < 2 meters		SEE NOTE 1		
Measurements	30 <u>unbiased</u> survey points uniformly d throughout the area	istributed	SEE NOTE 2		
	25 <u>biased</u> survey points at the followin	g types of	SEE NOTE 3		
	- Points around floors adjacent to it contaminated equipment (where a such as glycol P-traps (plenums) pumps, etc	ccessible)	SEE NOTE 4		
	- Point(s) near plenum airlocks				
	- Tanks having the potential for bei	ng			
	- Near waste drum storage areas				
	CEILINGS/WALLS > 2 meters 30 biased surveys (divided evenly between wall and ceiling when possible) with focus on				
	following areas - Walls behind process lines				
	- Tops/sides of plenums				
	- Stained or discolored areas				
	- Areas around pipe or other penetr	ations			
	- Other areas of potential concern b RCT judgement/experience	oased on			
	EQUIPMENT	!			
	45 <u>biased</u> survey points on equipment or more samples from	with one			
	Equipment which has visible leak contained spills beneath them	s or	<u> </u>		
	- Survey points at exhaust ducts				
	- 5 survey points on top of overhead (where locations are accessible)	nd piping			
	- Other areas of potential concern b RCT judgement/experience	eased on			

SURVEY PACKAGE SURVEY/SAMPLING INSTRUCTIONS FORM (cont)

Package ID · 99-00	002	Building 707			
Survey Area. B		Survey Unit N/A			
		om 200, 2 nd floor of Building 707 Area is North or radiological areas are posted as fixed contamination			
	Minimum Survey/Sampling I	Measurement Requirements			
Measurement	Number and Type	Comments			
Surface Scanning	FLOORS/WALLS < 2 meters 55 1 m² surface scans shall be taken at location identified for surface activity measurements. Locations found above DCGL shall be documented CEILINGS/WALLS > 2 meters NONE EQUIPMENT NONE	CEP NOTE 2			
Media Samples	NONE (2 nd Floor of 707 does not have painted	floors)			

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Scans

Volumetric

Isotopic Gamma

Samples

NONE

NONE

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SURVEY PACKAGE SURVEY/SAMPLING INSTRUCTIONS FORM (cont)

Package ID 99-0002	Building. 707
Survey Area. B	Survey Unit N/A

Survey Unit Description. North West corner of room 200, 2nd floor of Building 707 Area is North of Column K-4 and West of Column G-3 Building 707 radiological areas are posted as fixed contamination areas

Survey/Sampling Instructions

NOTE 1 Representative surveys of the area will be taken in accordance with 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements", for the following

- Direct alpha contamination
- Direct beta contamination
- Removable alpha contamination
- Removable beta contamination
- 1m² scan measurements for alpha then beta/gamma contamination

NOTE 2 The RCT shall document the locations of all surveys performed and maintain with the survey instructions package

NOTE 3 Areas which are posted/considered High Contamination Areas (HCA's) or Airborne Radioactivity Areas (ARA's) do not require Reconnaissance Level Characterization (RLC) surveys and may be skipped

NOTE 4 Surveys in these areas may be difficult to obtain due to height and/or access limitations RCT's shall utilize best judgement as to safely accessing these areas. Survey those areas that are readily accessible through reach tools, ladders, scaffolding and/or lift systems and where proper training has been received.

SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID: 99-0002	Building	Building 707				
Survey Area B	Survey	Survey Unit N/A				
Change #	Description	Initiator/ Date	PRE			
			<u>-</u>			

SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID • 99-0002	Building 707		
Survey Area· B	a· B Survey Unit N/A		
Survey Type · Reconnaissance Level Characterization	Survey X Final Status Surve	y 🗆	
All Documentation Reviewed for Completion	RCT Supervisor	PRE	
Scan Surveys			
Total Activity Surveys			
Exposure Rate Surveys			
Removable Surveys			
Media Samples			
Volumetric Samples			
All Surveys and Samples Accounted For	RCT Supervisor	PRE	
Scan Surveys			
Total Activity Surveys			
Exposure Rate Surveys			
Removable Surveys			
Media Samples			
Volumetric Samples			
Comments			
	RCT Supervisor Signature	Date	
	Project RE Signature	Pate	
	A COJOCE AND DIGHTER	Date	
	RESS Manager Signature	Date	

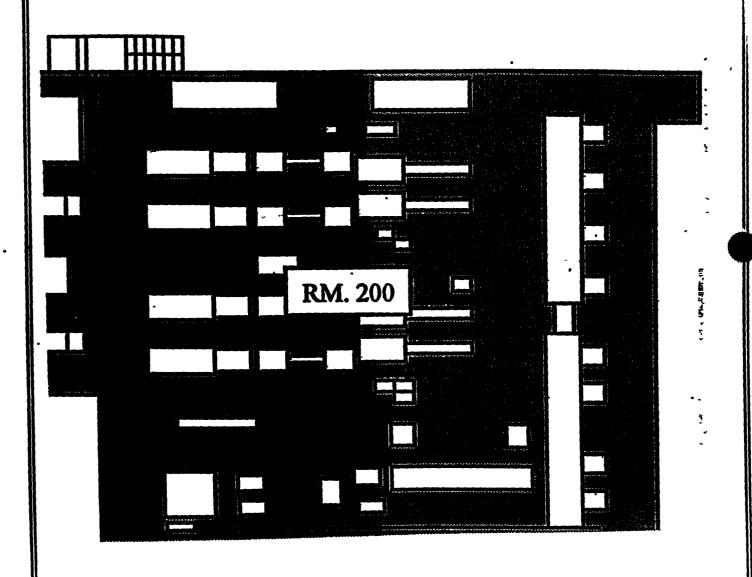
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1	NSTRUMENT	DATA	a management of the same of th	and the same of th			
Mfg	Mfg			Survey Tyr	pe:		
Model	Model		l	Building			
Serial #	Serial #		#	Location*			
Cal Due	Cal Due		ue				
Bkg	Bkg						
Efficiency	Efficiency		ency	RWP#			
MDA	MDA						
				Date		Time	
Mfg	Mfg	Mfg_					i
Model	Model		l			/	/
Serial #	Serial #		#	_	rınt name	Signat	ure Emp#
Cal Due	Cal Due		ue				
Bkg	Bkg.			_ RCT		<u>/</u>	
Efficiency	Efficiency		ency		rint name	Signat	ure Emp#
MDA	MDA	MDA		_ [
REMOVABLE Aipha DPM/100 cm²	REMOVABLE Beta DPM/100 cm²	DIRECT Alpha DPM/100 cm²	SURVEY DIRECT Beta DPM/100 cm ²	REMOVABLE Alpha DPM/100 cm ²	REMOVABLE Beta DPM/100 cm ²	DIRECT Alpha DPM/100 cm²	DIRECT Beta DPM/100 cm ²
1				26			
2				27 28			
4				29			
5				30			
6				31			
7				32			
8				33			
9				35	-		
11				36			
12				37			
13				38			
14				39 40			
15				41			_ -
16 17				42			
18				43			
19				44			
20				45	•		
21				46 47			
22				48			
23				49			
25				50			
Date Reviewed:_		RS Supervisio	on:				
11			P	rint Name		Signature	Emp #

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



SURVEY PACKAGE TRACKING FORM

Package ID · 99-0002		Building 707			
Survey Area: C	1. W.W.	Survey Unit N/A			
Initiator/ Date Release Date		Validation Date	Closure Date		
M 10/25/99					
7/1/					
	1000				
			1,4		
8 Mars			· · · · · · · · · · · · · · · · · · ·		

INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0002		Building, 707		Type 3		
Survey Area C		Survey Unit N/A		Area (m ²) 640		
Survey Unit Description. South East corner of room 200 2 nd floor of Building 707 Area is South of Column D-4 and East of Column G-5 Building 707 radiological areas are posted as fixed contamination areas						
Survey Type			Classification			
RLC Survey X	FSS 🗆		Class 1 □ Class 2 □ Class 3 □ Unknown X			
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
30	55	45	0	0	55	
Building	Building Type		Survey Area			
Survey Unit			Area (m²)			
Survey Unit Description.						
Survey Type			Classification			
RLC Survey □ FSS □			Class 1 □ Class 2 □ Class 3 □ Unknown □			
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
Building						
Building		Туре		Survey Area		
Building Survey Unit		Туре	Area (m²)	Survey Area		
	ription	Туре	Area (m²)	Survey Area		
Survey Unit	ription	Туре	Area (m²) Classification	Survey Area		
Survey Unit Survey Unit Desc	FSS 🗆	Туре			Jnknown □	
Survey Unit Survey Unit Desc Survey Type		Type Equipment Surface Activity Measurements	Classification		Jnknown □ Surface Activity Scans	
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1 □ Class	2 □ Class 3 □ U Volumetric	Surface Activity	
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1 □ Class	2 □ Class 3 □ U Volumetric	Surface Activity	
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements	FSS Biased Surface Activity	Equipment Surface Activity Measurements	Classification Class 1 □ Class	2 Class 3 U Volumetric Samples	Surface Activity	
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 □ Class Media Samples	2 Class 3 U Volumetric Samples	Surface Activity	
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 □ Class Media Samples	2 Class 3 U Volumetric Samples	Surface Activity	
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 □ Class Media Samples Area (m²)	2 Class 3 U Volumetric Samples Survey Area	Surface Activity	
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description Survey Unit Description	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 □ Class Media Samples Area (m²)	2 Class 3 U Volumetric Samples Survey Area	Surface Activity Scans	

SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	Building 707					
Survey Area: C	Survey Unit N/A					
Survey Unit Description: SOUTH EAST CORNER OF ROOM 200, 2 ND FLOOR OF BUILDING 707 AREA IS SOUTH OF COLUMN D-4 AND WEST OF COLUMN G-5 BUILDING 707 RADIOLOGICAL AREAS ARE POSTED AS FIXED CONTAMINATION AREAS						
Building Information:						
Survey Type Reconnaissance Level Characterization Survey X Final Status Survey □						
Building Type Type 1 □ Type 2 □ Type 3 X						
Classification Class 1 □ Class 2 □ Class 3 □ Ur	nknown X					
Contaminants of Concern Plutonium X Uranium X	Other					
Justification for Classification: N/A						
Special Support Requirements: Ladder, mani-						
instrumentation may be required for access into	overhead areas – use caution	n in overheads				
Special Safety Precautions: Access to overhead areas may require additional controls Review RWP requirements and surveys prior to entry Use caution when working in overheads Special security requirements for access to 2 nd floor						
Isolation Controls:						
Level 1 🗆 Level 2 🗖 N/A X						
Labeling Requirements: NONE						
Survey Package Implementation:						
		_				
		_				
Survey Package Closure:	<u> </u>					
Survey I ackage closure.						
	ogical Engineer Signature	Date				
		N/A				
	er Signature	Date				
	er Signature	Date				

Package ID: 99-0002		Building 707
Survey Area: C		Survey Unit N/A
Survey Unit Description South East corner of room 200, 2 ⁿ Column D-4 and East of Column G-5 Building 707 radiological areas		
	Mınımum Survey/Sampling N	leasurement Requirements
Measurement	Number and Type	Comments
Surface Activity	FLOORS/WALLS < 2 meters	SEE NOTE 1
Measurements	30 <u>unbiased</u> survey points uniformly dis	SEE NOTE 2
	25 biased survey points at the following	types of SEE NOTE 3
	areas	SEE NOTE 4
	Points around floors adjacent to int contaminated equipment (where ac such as glycol P-traps (plenums), h pumps, etc	cessible)
	- Point(s) near plenum airlocks	
	- Tanks having the potential for bein internally contaminated	g
	- Near waste drum storage areas	
	CEILINGS/WALLS > 2 meters	
	30 biased surveys (divided evenly between and ceiling when possible) with focus of following areas	
	- Walls behind process lines	
	- Tops/sides of plenums	
	- Stained or discolored areas	
	- Areas around pipe or other penetral	tions
	- Other areas of potential concern ba RCT judgement/experience	sed on
	EQUIPMENT	
	45 biased survey points on equipment w	ith one
	- Equipment which has visible leaks contained spills beneath them	or
	- Survey points at exhaust ducts	
	- 5 survey points on top of overhead (where locations are accessible)	piping
	Other areas of potential concern ba RCT judgement/experience	sed on

Package ID: 99-0002	Building 707
Survey Area: C	Survey Unit N/A

Survey Unit Description: South East corner of room 200, 2nd floor of Building 707 Area is South of Column D-4 and East of Column G-5 Building 707 radiological areas are posted as fixed contamination areas

Minimum Survey/Sampling Measurement Requirements			
Measurement	Number and Type	Comments	
Surface Scanning	FLOORS/WALLS < 2 meters	SEE NOTE 1	
	55 1 m ² surface scans shall be taken at each location identified for non-scan surface activity	SEE NOTE 2	
	measurements Locations found above the	SEE NOTE 3	
	DCGL shall be documented	SEE NOTE 4	
	CEILINGS/WALLS > 2 meters		
	NONE		
	EQUIPMENT		
	NONE		
Media Samples	NONE		
	(2 nd Floor of 707 does not have painted floors)		

Volumetric	NONE		
Samples			
Isotopic Gamma	NONE		
Scans			

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Package ID 99-0002	Building 707
Survey Area· C	Survey Unit N/A
	corner of room 200, 2 nd floor of Building 707 Area is South of Building 707 radiological areas are posted as fixed contamination
Su	rvey/Sampling Instructions
NOTE 1 Representative surveys of the au "Contamination Monitoring Requirements	rea will be taken in accordance with 3-PRO-165-RSP-07 02, ", for the following
- Direct alpha contamination	
- Direct beta contamination	
- Removable alpha contamination	
- Removable beta contamination	
- 1m ² scan measurements for alpha ther	n beta/gamma contamination
NOTE 2 The RCT shall document the lo instructions package	cations of all surveys performed and maintain with the survey
	red High Contamination Areas (HCA's) or Airborne Radioactivity ance Level Characterization (RLC) surveys and may be skipped
utilize best judgement as to safely accessing	difficult to obtain due to height and/or access limitations RCT's shall ng these areas. Survey those areas that are readily accessible through systems and where proper training has been received.

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SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID: 99-0002		Building 707		
Survey Area C	Surv	ey Unit N/A		
Change #	Description	Initiator/ Date	PRE	

SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID: 99-0002	Building	707		
Survey Area: C	Survey Un	urvey Unit N/A		
Survey Type: Reconnaissance Level Characterization Survey X Final Status Survey □				
All Documentation Reviewed for Completion	s	RCT upervisor	PRE	
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
All Surveys and Samples Accounted For	S	RCT upervisor	PRE	
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
Comments				
·	_			
F E	RCT Supervisor S	ignature	Date	
I and the second	Project RE Signat	ure	Date	
F	RESS Manager Si	gnature	Date	

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and a second and an extension of the second and the	INSTRUMENT	'DATA					
				Survey Tvi	3 6 °		
Afg			el	Building	pe:		
Model Serial #	Model Serial #	Mode	#	Location*			
Cal Due	Cal Due		ue	Purpose			
		<u> </u>		· Turpose	<u></u>		
3kg			ency	- DWD#			
Efficiency			Circy	KWI # —			
MDA	_ MDA	NIDA		Date		Time	
Mf~	Mfg	Mfg_		Date			
Mfg Model	Model		:l	RCT		/	/
Serial #	Serial #	Niode Serial	/1 #		rint name	Signat	ture Emp
Cal Due	_ Cal Due)ue	- -	11111 1100110	2.6	
3kg	Bkg			RCT		1	1
officiency	_ Efficiency			- \	rint name	Signat	ture Emp
MDA		MDA	·	·			-
			SURVEY	RESULTS			
REMOVABI Alpha DPM/100 cr	Beta	DIRECT Alpha DPM/100 cm ²	SURVEY	REMOVABLE Alpha DPM/100 cm ²	REMOVABLE Beta DPM/100 cm ²	DIRECT Alpha DPM/100 cm²	DIRECT Beta DPM/100 cm ²
Alpha DPM/100 ca 1	Bets n ² DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ²	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2	Bets n ² DPM/100 cm ²	Alpha DPM/100 cm ²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3	Bets n ² DPM/100 cm ²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2	Beta n² DPM/100 cm²	Alpha DPM/100 cm ²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8 9	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34	Beta	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9 10	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8 9 10 11 12 13	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8 9 10 11 12 13 14	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8 9 10 11 12 13 14	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Beta	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Beta	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Beta	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Beta	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Beta	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Beta n² DPM/100 cm²	Alpha DPM/100 cm²	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta

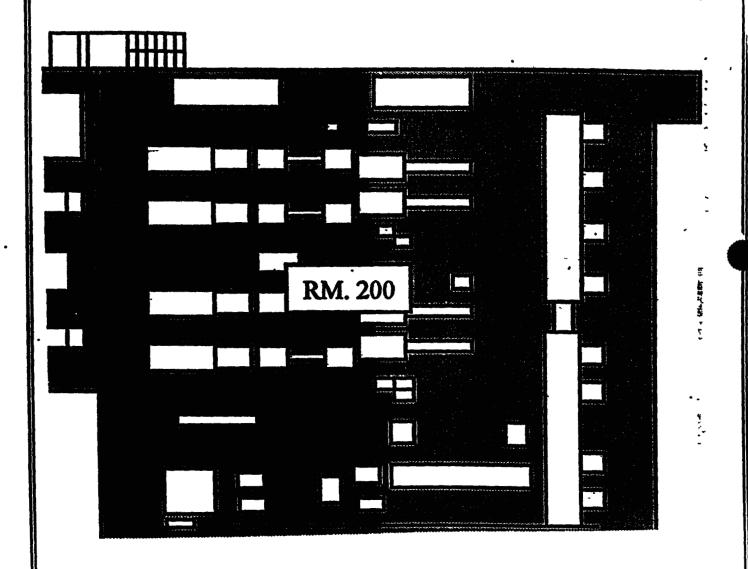
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RS FORMS 07.02

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707			
Survey Area. D		Survey Unit N/A			
Initiator/ Date	Release Date	Validation Date	Closure Date		
M 10/25/49					
	· · · · · · · · · · · · · · · · · · ·				
	· · · · · · · · · · · · · · · · · · ·				
	 ,				

INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	ckage ID 99-0002 Building 707			Type 3		
Survey Area D Survey Unit N/A		\	Area (m ²) 640			
Survey Unit Description South West corner of room 200, West of Column G-5 Building 707 radiological areas are post are posted as fixed contamination areas						
Survey Type			Classification	<u> </u>		
RLC Survey X	FSS □		Class 1 Class	2 □ Class 3 □ U	Jnknown X	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
30	55	45	0	0	55	
Building		Туре		Survey Area		
Survey Unit			Area (m²)			
Survey Unit Desc	cription					
Survey Type·			Classification			
RLC Survey □	FSS □		Class 1 Class	2 □ Class 3 □ U	Jnknown 🗆	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
				ļ		
Building		Туре		Survey Area		
Survey Unit		Area (m²)				
Survey Unit Desc	cription					
Survey Type·			Classification		**************************************	
RLC Survey □	FSS 🗆		Class 1 Class	2 □ Class 3 □ U	Jnknown 🗆	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
Building		Туре	Survey Area			
Survey Unit		Area (m²)				
Survey Unit Desc	cription					
Survey Type			Classification			
RLC Survey □	FSS □		Class I Class	2 □ Class 3 □ U	Jnknown □	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	

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SURVEY PACKAGE COVER SHEET

Cackage ID: 99-0002 Building 707				
Survey Area: D	rvey Area: D Survey Unit · N/A			
Survey Unit Description: SOUTH WEST CORNER OF ROOM 200, 2 ND FLOOR OF BUILDING 707 AREA IS SOUTH OF COLUMN K-4 AND WEST OF COLUMN G-5 BUILDING 707 RADIOLOGICAL AREAS ARE POSTED AS FIXED CONTAMINATION AREAS				
Building Information:				
Survey Type Reconnaissance Level Characterization S	urvey X Final Status Survey			
Building Type Type 1 □ Type 2 □ Type 3 X				
Classification Class 1 □ Class 2 □ Class 3 □ Un	known X			
Contaminants of Concern Plutonium X Uranium X	Other			
Justification for Classification: N/A				
Special Support Requirements: Ladder, manli instrumentation may be required for access into	· ·			
Special Safety Precautions: Access to overhead Review RWP requirements and surveys prior to overheads Special security requirements for access to overhead security requirements.	entry Use caution when wo			
Isolation Controls:				
Level 1 □ Level 2 □ N/A X				
Labeling Requirements: NONE				
Survey Package Implementation:	$\gamma = i \Lambda u$	<i>,</i> ,		
Survey Package Closure:				
	iological Engineer Signature	Date		
	iological Engineer Signature	Date N/A		
	nager Signature	Date		
		- Date		
	nager Signature	Date		

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Package ID: 99-0002		Building 707		
Survey Area · D		Survey Unit N/A		
Survey Unit Description. South West corner of room 200, 2 Column K-4 and West of Column G-5 Building 707 radiologicareas				
	Minimum Survey/Sampling	Measurer	nent Requirements	
Measurement	Number and Type		Comments	
Surface Activity	FLOORS/WALLS < 2 meters		SEE NOTE 1	
Measurements	30 <u>unbiased</u> survey points uniformly d throughout the area	ıstrıbuted	SEE NOTE 2	
	25 biased survey points at the followin	g types of	SEE NOTE 3	
	areas	8 71	SEE NOTE 4	
	Points around floors adjacent to in contaminated equipment (where a such as glycol P-traps (plenums) pumps, etc	ccessible)		
	- Point(s) near plenum airlocks			
	- Tanks having the potential for bei	ng		
	- Near waste drum storage areas			
	CEILINGS/WALLS > 2 meters			
	30 <u>biased</u> surveys (divided evenly betward ceiling when possible) with focus following areas			
	- Walls behind process lines	i		
	- Tops/sides of plenums			
	- Stained or discolored areas			
	- Areas around pipe or other penetr	ations		
	- Other areas of potential concern b RCT judgement/experience	ased on		
	EQUIPMENT			
	45 <u>biased</u> survey points on equipment with one or more samples from			
	- Equipment which has visible leak contained spills beneath them	s or		
	- Survey points at exhaust ducts	i		
	- 5 survey points on top of overhea (where locations are accessible)	d piping		
	- Other areas of potential concern b RCT judgement/experience	ased on		

Package ID: 99-0002	Building 707
Survey Area: D (640 m ²)	Survey Unit N/A

Survey Unit Description: South West corner of room 200, 2nd floor of Building 707 Area is South of Column K-4 and West of Column G-5 Building 707 radiological areas are posted as fixed contamination areas

	Minimum Survey/Sampling Measure	ement Requirements
Measurement	Number and Type	Comments
urface Scanning	FLOORS/WALLS < 2 meters	SEE NOTE 1
	55 1 m ² surface scans shall be taken at each	SEE NOTE 2
	location identified for surface activity measurements. Locations found above the	SEE NOTE 3
	DCGL shall be documented	SEE NOTE 4
	CEILINGS/WALLS > 2 meters	
	NONE EQUIPMENT	
	NONE	
4 1 6 1	NONE	
Media Samples	(2 nd Floor of 707 does not have painted floors)	
	(2 Tion of 707 does not have painted hoors)	
/olumetric	NONE	
amples		
notonia Commo	NONE	
sotopic Gamma Scans	INUINE	
vailu		

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Package ID: 99-0002	Building 707	TO COME
Survey Area: D (640 m ²)	Survey Unit N/A	

Survey Unit Description: South West corner of room 200, 2nd floor of Building 707 Area is South of Column K-4 and West of Column G-5 Building 707 radiological areas are posted as fixed contamination areas

Survey/Sampling Instructions

NOTE 1 Representative surveys of the area will be taken in accordance with 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements", for the following

- Direct alpha contamination
- Direct beta contamination
- Removable alpha contamination
- Removable beta contamination
- 1m² scan measurements for alpha then beta/gamma contamination

NOTE 2 The RCT shall document the locations of all surveys performed and maintain with the survey instructions package

NOTE 3 Areas which are posted/considered High Contamination Areas (HCA's) or Airborne Radioactivity Areas (ARA's) do not require Reconnaissance Level Characterization (RLC) surveys and may be skipped

NOTE 4 Surveys in these areas may be difficult to obtain due to height and/or access limitations RCT's shall utilize best judgement as to safely accessing these areas Survey those areas that are readily accessible through reach tools, ladders, scaffolding and/or lift systems and where proper training has been received

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SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID: 99-0002 Survey Area: D		Building 707 Survey Unit N/A		
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SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID 99-0002 Bu		Building 707		
Survey Area: D Su		Survey Unit N/A		
Survey Type · Reconnaissance Level Characterization Survey X Final Status Survey □				
All Documentation Reviewed for Completion		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
All Surveys and Samples Accounted For		RCT PRE Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
Comments	147			
PCT Supervise Desired Name	RCT	Supervisor Signature		Date
	Proje	ect RE Signature		Date

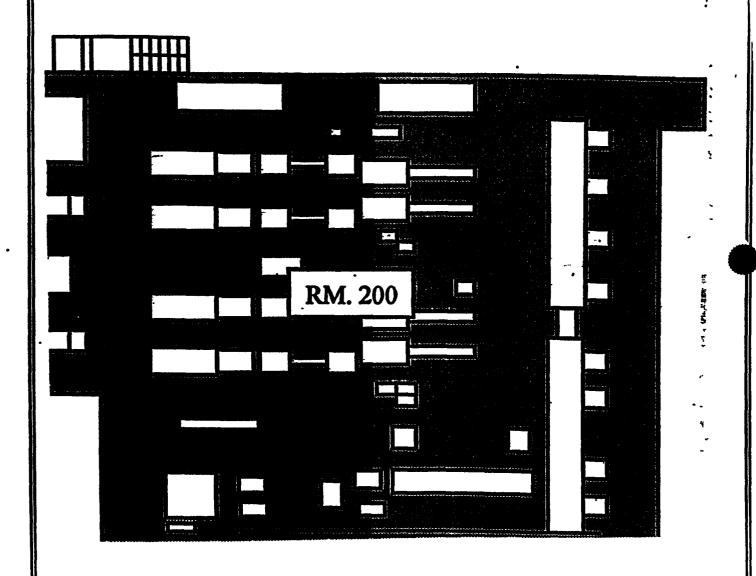
	RES	S Manager Signature		Date

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	NSTRUMENT			,			
ġ	Mfg				pe:		
odel	Model		Model Building:				
rial #	Serial #	Serial	Serial # Location*				
1 Due	Cal Due	Cal D	Due				
g	Bkg	Bkg		_			
ficiency	Efficiency		ency	RWP#			
DA	MDA		\	_			
				Date		Time	
fg	Mfg	Mfg		. }			
odel	Model		əl	RCT		/	/
rıal #	Serial #	Seria	1#	P	rınt name	Signat	ure Emp
1 Due	Cal Due	Cal D	Due	.}			_
g	Bkg.			RCT		<i>l</i>	//
ficiency	Efficiency	Effici	iency		rint name	Signat	ure Emp
DA	MDA	MDA					_
			SURVEY	RESULTS			
REMOVABLE	REMOVABLE	DIRECT	DIRECT	REMOVABLE	REMOVABLE Beta	DIRECT	DIRECT
REMOVABLE Alpha DPM/100 cm ²	REMOVABLE Beta DPM/100 cm²	DIRECT Alpha DPM/100 cm ²		REMOVABLE Alpha DPM/100 cm ²	REMOVABLE Beta DPM/100 cm²	DIRECT Alpha DPM/100 cm ²	DIRECT Beta DPM/100 cm ²
Alpha DPM/100 cm ²	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26	Beta	Alpha	Beta
Alpha DPM/100 cm ² 1 2 3	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28 29	Beta	Alpha	Beta
Alpha DPM/100 cm ² 1 2 3	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28	Beta	Alpha	Beta
Alpha DPM/100 cm ² 1 2 3	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707 Survey Unit N/A		
Survey Area. E				
Initiator/ Date	Release Date	Validation Date	Closure Date	
10/25/98				
111 1241				
	· · · · · · · · · · · · · · · · · · ·			
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INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	002	Building 707	Type 3		
Survey Area E Survey Unit N/A		1	Area (m²) 841		
Survey Unit Description East half of room 210, 2nd					
7, G-9, G-11 Building 707 radiological areas are posted as fixed contamination areas					
Survey Type			Classification		
RLC Survey X	FSS □		Class 1 □ Class		Jnknown X
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
30	65	45	0	0	65
Building		Туре		Survey Area	
Survey Unit			Area (m²)		
Survey Unit Description					
Survey Type			Classification		
RLC Survey □	FSS □		Class 1 Class	2 □ Class 3 □ U	Jnknown □
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building		Туре	Survey Area		
Survey Unit			Area (m²)		
Survey Unit Desc	ription				
Survey Type			Classification		
RLC Survey □	FSS □		Class 1 □ Class 2 □ Class 3 □ Unknown □		
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building		Туре	Survey Area		
Survey Unit			Area (m²)		
Survey Unit Desc	ription				
Survey Type			Classification		
RLC Survey □	FSS □		Class 1 □ Class		Jnknown □
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	ckage ID: 99-0002 Building. 707				
Survey Area: E	Survey Unit N/A				
Survey Unit Description: EAST HALF OF ROOM 210, 2 ND FLOOR OF BUILDING 707 AREA IS EAST OF COLUMNS G-7, G-9, G-11 BUILDING 707 RADIOLOGICAL AREAS ARE POSTED AS FIXED CONTAMINATION AREAS					
Building Information:					
Survey Type Reconnaissance Level Characterization S	Survey X Final Status Survey				
Building Type Type 1 Type 2 Type 3 X					
Classification Class 1 Class 2 Class 3 U	nknown X				
Contaminants of Concern Plutonium X Uranium X	Other				
Justification for Classification: N/A					
Special Support Requirements: Ladder, manl instrumentation may be required for access into	_ ·				
Special Safety Precautions: Access to overhead Review RWP requirements and surveys prior to overheads Special security requirements for access to overhead security requirements.	entry Use caution when wor				
Isolation Controls:					
Level 1 🗆 Level 2 🗆 N/A X					
Labeling Requirements: NONE					
Survey Package Implementation:					
	1	•••			
	S Manager Signature	Date			
Survey Package Closure:					
	Padiological Engineer Compture	D-4-			
	Radiological Engineer Signature	N/A			
	Managar Sumatura				
	Manager Signature	Date			
RESS Manager Printed Name Employee # RES	S Manager Signature	Date			

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Package ID: 99-0002		Building 707
Survey Area · E		Survey Unit N/A
Survey Unit Description: East half of room 210, 2 nd G-7, G-9, G-11 Building 707 radiological areas are post		•
	Minimum Survey/Sampling I	Measurement Requirements
Measurement	Number and Type	Comments
Surface Activity	FLOORS/WALLS < 2 meters	SEE NOTE 1
Measurements	30 <u>unbiased</u> survey points uniformly di throughout the area	stributed SEE NOTE 2
	35 biased survey points at the following	set voes of SEE NOTE 3
 	areas	SEE NOTE 4
	- Points around floors adjacent to in contaminated equipment (where a such as glycol P-traps (plenums), l pumps, etc	accessible)
	- Point(s) near plenum airlocks	
	- Tanks having the potential for bein internally contaminated	ing
	- Areas of potential concern based of judgement/experience	on RCT
	- Near waste drum storage areas	
	CEILINGS/WALLS > 2 meters	
	and ceiling when possible) with focus of following areas	
	- Walls behind process lines	
	- Tops/sides of plenums	
	- Stained or discolored areas	
	- Areas around pipe or other penetra	
	- Areas of potential concern based of judgement/experience	on RCT
	EQUIPMENT	
	45 <u>biased</u> survey points on equipment vor more samples from	with one
	- Equipment which has visible leaks contained spills beneath them	s or
	- Survey points at exhaust ducts	
	- 5 survey points on top of overhead (where locations are accessible)	nd piping
	- Other areas of potential concern ba RCT judgement/experience	pased on

Package ID • 99-0002	Building 707
Survey Area· E	Survey Unit· N/A
C II '4 D	nd ci co ii zoz A E (co i

Survey Unit Description East half of room 210, 2nd floor of Building 707 Area is East of Columns G-7, G-9, G-11 Building 707 radiological areas are posted as fixed contamination areas

	Minimum Survey/Sampling Measure	ement Requirements
Measurement	Number and Type	Comments
Surface Scanning	FLOORS/WALLS < 2 meters	SEE NOTE 1
	65 1 m ² surface scans shall be taken at each	SEE NOTE 2
	location identified for surface activity measurements Locations found above the	SEE NOTE 3
	DCGL shall be documented	SEE NOTE 4
	CPM INICCAMANA	
	CEILINGS/WALLS > 2 meters NONE	
	EQUIPMENT	
	NONE	
Media Samples	NONE	
viedia Samples	(2 nd Floor of 707 does not have painted floors)	
	C Trees or yet does not have painted needs,	
Volumetric Samples	NONE	
Samples		
Isotopic Gamma	NONE	
Scans		

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Package ID. 99-0002	Building 707
Survey Area: E	Survey Unit N/A
Survey Unit Description East half of room 210, 2 G-7, G-9, G-11 Building 707 radiological areas are po	
Survey/Sample	ing Instructions
NOTE 1 Representative surveys of the area will be tak "Contamination Monitoring Requirements", for the follow	
- Direct alpha contamination	
- Direct beta contamination	
- Removable alpha contamination	
- Removable beta contamination	
- 1m ² scan measurements for alpha then beta/gamma	contamination
NOTE 2. The RCT shall document the locations of all substructions package	
NOTE 3. Areas which are posted/considered High Cont Areas (ARA's) do not require Reconnaissance Level Cha	
NOTE 4 Surveys in these areas may be difficult to obtautilize best judgement as to safely accessing these areas reach tools, ladders, scaffolding and/or lift systems and very statement of the s	Survey those areas that are readily accessible through

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SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID 99-0002		Building 707		
Survey Area· E		Survey Unit N/A	· · · · · · · · · · · · · · · · · · ·	**************************************
Change #	Description		Initiator/ Date	PRE
				9

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SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID. 99-0002	Bu	ıldıng 707		
Survey Area. E	Su	rvey Unit: N/A		
Survey Type Reconnaissance Level Characterization	Surve	ey X Final Status Surve	у 🗆	
All Documentation Reviewed for Completion		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples	1			
Volumetric Samples				
All Surveys and Samples Accounted For		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
Comments	<u> </u>	(
	СТ	Supervisor Signature		Date
	тоје	ct RE Signature		Date
	ESS	Manager Signature		Date

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was a control which of the residence of the second		6 1 P.			CHIMOILOX	ene ayınız.	
	INSTRUMENT	DATA		ī		_	
Mfg	Mfg	Mfg.		Survey Ty	pe:		
Model	Model	Mode	:ll	Building _			
Serial #	Serial #	Serial	l#				
Cal Due	_ Cal Due	Cal D	ue	Purpose			
Bkg	Bkg	Bkg		_			
Efficiency	_ Efficiency		ency	RWP#			
MDA	MDA	MDA		. [
				Date		Time	
Mfg	Mfg	Mfg_		. [
Model	Model	Mode	:l	RCT		<u>/</u>	/
Serial #	Serial #	Seria	l#	.) P	rint name	Signat	ture Emp
Cal Due	_ Cal Due		ue	. [
Bkg	Bkg	Bkg		RCT		/	
Efficiency			iency	P	rınt name	Signat	ture Emp.
MDA	MDA	MDA	<u> </u>	.]			
REMOVABI Alpha DPM/100 ca 1	Beta n ² DPM/100 cm ²	DIRECT Alpha DPM/100 cm ²	DIRECT Beta DPM/100 cm ²	REMOVABLE Alpha DPM/100 cm ²	REMOVABLE Beta DPM/100 cm ²	DIRECT Alpha DPM/100 cm ²	DIRECT Beta DPM/100 cm²
2				27			
3				28 29			
5				30			
6				31			
7							
8				32			
				33			
9				33			
9				33 34 35			
9 10 11				33			
9				33 34 35 36 37 38			
9 10 11 12 13 14				33 34 35 36 37 38 39			
9 10 11 12 13 14 15				33			
9				33			
9 10 11 12 13 14 15				33			
9				33			
9 10 11 12 13 14 15 16 17 18 19 20				33			
9				33			
9 10 11 12 13 14 15 16 17 18 19 20 21 22				33			
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23				33			
9				33			
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24		S Supervisio		33			

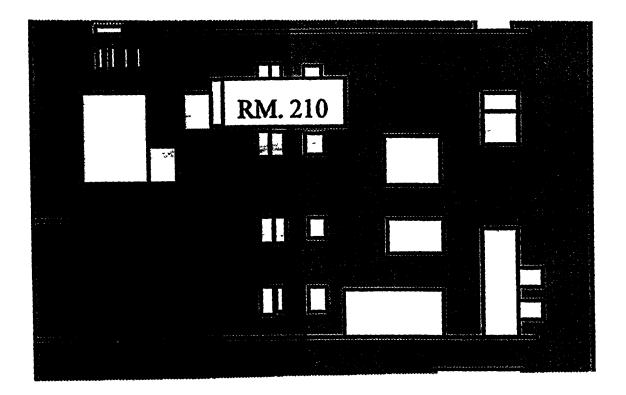
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RS FORMS 07.02

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707	
Survey Area· F		Survey Unit N/A	
Initiator/ Date	Release Date	Validation Date	Closure Date
A) 10/25/98			

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INITIAL SURVEY PACKAGE DESIGN FORM

Package ID. 99-0	0002	Building 707		Type 3	
Survey Area F		Survey Unit. N/A	1	Area (m ²) 841	
		of room 210, 2 nd flos s are posted as fixed			olumns G-7, G-9,
Survey Type			Classification		
RLC Survey X	FSS □		Class 1 □ Class	2 □ Class 3 □ U	J nknown X
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
30	65	45	0	0	65
Building		Туре		Survey Area	
Survey Unit.			Area (m²)		
Survey Unit Desc	eription:				
Survey Type			Classification		
RLC Survey □	FSS 🗆		Class 1 □ Class	2 □ Class 3 □ U	Jnknown 🗆
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building		Туре		Survey Area	
Building Survey Unit		Туре	Area (m²)	Survey Area	
	cription	Туре	Area (m²)	Survey Area	
Survey Unit	cription	Туре	Area (m²) Classification	Survey Area	
Survey Unit Survey Unit Desc	FSS 🗆	Туре			Jnknown □
Survey Unit Survey Unit Desc		Type Equipment Surface Activity Measurements	Classification		Jnknown □ Surface Activity Scans
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1 □ Class	2 □ Class 3 □ U Volumetric	Surface Activity
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1 □ Class	2 □ Class 3 □ U Volumetric	Surface Activity
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements	FSS Biased Surface Activity	Equipment Surface Activity Measurements	Classification Class 1 □ Class	2 □ Class 3 □ U Volumetric Samples	Surface Activity
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 □ Class Media Samples	2 □ Class 3 □ U Volumetric Samples	Surface Activity
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 □ Class Media Samples	2 □ Class 3 □ U Volumetric Samples	Surface Activity
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 □ Class Media Samples Area (m²)	2 Class 3 U Volumetric Samples Survey Area	Surface Activity
Survey Unit Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description Survey Unit Description	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 Class Media Samples Area (m²)	2 Class 3 U Volumetric Samples Survey Area	Surface Activity Scans

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	Building: 707	
Survey Area: F	Survey Unit N/A	
Survey Unit Description: WEST HALF OF ROOM WEST OF COLUMNS G-7, G-9, G-11 BUILDING 707 CONTAMINATION AREAS		
Building Information:		
Survey Type Reconnaissance Level Characterization S	urvey X Final Status Survey	
Building Type Type 1 ☐ Type 2 ☐ Type 3 X		
Classification Class 1 🗆 Class 2 🗆 Class 3 🗖 Un	known X	
Contaminants of Concern Plutonium X Uranium X	Other 🗆	
Justification for Classification: N/A		
Special Support Requirements: Ladder, manli	_ ·	
instrumentation may be required for access into	overnead areas – use caution i	n overneads
Special Safety Precautions: Access to overhead Review RWP requirements and surveys prior to overheads. Special security requirements for access to overhead security requirements.	entry Use caution when wor	
Isolation Controls:		
Level 1 🗆 Level 2 🗖 N/A X		
Labeling Requirements: NONE		
Labeling Requirements. NONE		
Survey Package Implementation:		
		ļ
		
,g.		
s	S Radiological Engineer Signature	Date
7/	A	N/A
F	S Manager Signature	Date
.s.	S Manager Signature	Date

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Package ID: 99-0	002 E	Building 707
Survey Area: F	S	urvey Unit N/A
	ription. West half of room 210, 2 nd inlding 707 radiological areas are poster	floor of Building 707 Area is West of Columns d as fixed contamination areas
	Mınımum Survey/Samplıng M	easurement Requirements
Measurement	Number and Type	Comments
Surface Activity	FLOORS/WALLS < 2 meters	SEE NOTE 1
Measurements	30 <u>unbiased</u> survey points uniformly distribution throughout the area	SEE NOTE 2
	35 biased survey points at the following t	ypes of SEE NOTE 3
	areas	SEE NOTE 4
	- Points around floors adjacent to inte contaminated equipment (where acc such as glycol P-traps (plenums), hy pumps, etc	essible)
	- Point(s) near plenum airlocks	
	- Tanks having the potential for being internally contaminated	
	- Areas of potential concern based on judgement/experience	RCT
	- Near waste drum storage areas	
	CEILINGS/WALLS > 2 meters	
	30 <u>biased</u> surveys (divided evenly between and ceiling when possible) with focus on following areas	en wall
	- Walls behind process lines	
	- Tops/sides of plenums	
	- Stained or discolored areas	
	- Areas around pipe or other penetrati	ons
	- Areas of potential concern based on judgement/experience	RCT
	EQUIPMENT	
	45 <u>biased</u> survey points on equipment will or more samples from	th one
	- Equipment which has visible leaks of contained spills beneath them	r
	- Survey points at exhaust ducts	
	- 5 survey points on top of overhead (where locations are accessible)	piping
	- Other areas of potential concern base RCT judgement/experience	ed on

			VOI NOCTIONS FORM (cont)
Package ID: 99-00	002	Building	g. 707
Survey Area· F		Survey	Unit N/A
	ription. West half of room 210, 2 ailding 707 radiological areas are pos		f Building 707 Area is West of Columns d contamination areas
	Minimum Survey/Sampling	Measurei	ment Requirements
Measurement	Number and Type		Comments
Surface Scanning	FLOORS/WALLS < 2 meters		SEE NOTE 1
	65 1 m ² surface scans shall be taken at location identified for non-scan surface		SEE NOTE 2
	measurements Locations found above		SEE NOTE 3
	DCGL shall be documented		SEE NOTE 4
	CEILINGS/WALLS > 2 meters		
	NONE		
	EQUIPMENT		
	NONE		
Media Samples	NONE		
:	(2 nd Floor of 707 does not have painted	floors)	
Volumetric	NONE		
Samples	INOINE		
,			
Isotopic Gamma	NONE		
Scans			

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Package ID • 99-0002	Building 707
Survey Area: F	Survey Unit N/A
Survey Unit Description. West half of room 210 G-7, G-9, G-11 Building 707 radiological areas are p	, 2 nd floor of Building 707 Area is West of Columns osted as fixed contamination areas
Survey/Samp	oling Instructions
NOTE 1 Representative surveys of the area will be ta "Contamination Monitoring Requirements", for the fol	
- Direct alpha contamination	
- Direct beta contamination	
- Removable alpha contamination	
- Removable beta contamination	
- 1m ² scan measurements for alpha then beta/gamm	
NOTE 2 The RCT shall document the locations of al instructions package	I surveys performed and maintain with the survey
NOTE 3 Areas which are posted/considered High Con Areas (ARA's) do not require Reconnaissance Level C	
	otain due to height and/or access limitations RCT's shall so Survey those areas that are readily accessible through where proper training has been received

SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Survey U	nit. N/A				
	Survey Unit· N/A				
ption	Initiator/ Date	PRE			
					
					
	ption				

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SURVEY PACKAGE VALIDATION CHECKLIST FORM

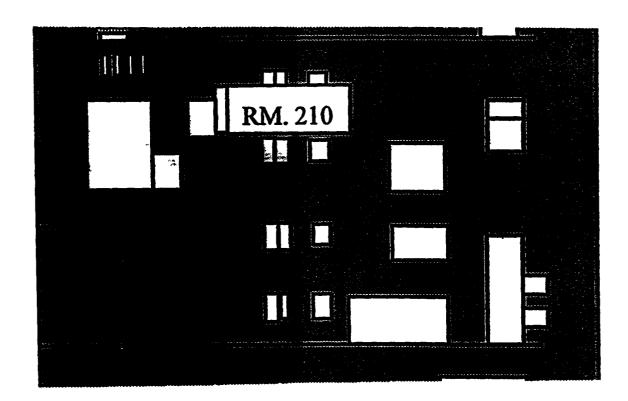
Package ID. 99-0002	Bur	ilding 707		
Survey Area. F	Sur	vey Unit. N/A		
Survey Type Reconnaissance Level Characterization	1 Surve	y X Final Status Surve	у 🛘	
All Documentation Reviewed for Completion		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
All Surveys and Samples Accounted For		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				· · · · · · · · · · · · · · · · · · ·
Removable Surveys				
Media Samples				
Volumetric Samples				
Comments				
	RCT S	Supervisor Signature		Date
			ļ	
	Projec	t RE Signature		Date
	RESS	Manager Signature		Date

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	INSTRUMENT	DATA					
Mfg				Survey Typ	pe:		
Model			1	Building			
Serial #	Serial #		#	Location			
Cal Due	Cal Due		ue	· , —			
Bkg			ency	RWP#			
Efficiency MDA				"			·
WIDA	_ WDA		` _	Date		Time	
Mfa	Mfg	Mfo					
Mfg Model			al	RCT		1	1
Serial #	Serial #		#		rint name	Signat	ture Emp. #
Cal Due)ue	· [
Bkg				RCT		/	1
Efficiency			iency	-	rint name	Signat	ture Emp #
MDA			\			Ü	•
REMOVAB							
Alpha DPM/100 ca	Beta	DIRECT Alpha DPM/100 cm ²	DIRECT Beta DPM/100 cm ²	REMOVABLE Alpha DPM/100 cm²	REMOVABLE Beta DPM/100 cm ²	DIRECT Alpha DPM/100 cm²	DIRECT Beta DPM/100 cm ²
Alpha DPM/100 ca 1	Beta m ² DPM/100 cm ²	Alpha	Beta	Alpha DPM/100 cm ² 26	Beta	Alpha	Beta
Alpha DPM/100 ca 1 2	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm ² 26	Beta DPM/100 cm²	Alpha	Beta
Alpha DPM/100 cs 1. 2 3.	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm ² 26 27 28	Beta	Alpha	Beta
Alpha DPM/100 ca 1. 2 3. 4	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm ² 26 27 28 29 30	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cs 1. 2 3.	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9 10	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9 10 11 12	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cr 1. 2 3. 4 5 6 7 8 9 10 11 12 13	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cr 1. 2 3. 4 5 6 7 8 9 10 11 12 13 14	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cr 1. 2 3. 4 5 6 7 8 9 10 11 12 13 14	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cr 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cs 1. 2 3. 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cs 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 30 31 32 33 34 35 36 37 38 40 41 42 43 44 45	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cs 1. 2 3. 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cs 1. 2 3. 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 40 41 42 43 44 45 46	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 cs 1. 2 3. 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Beta m² DPM/100 cm²	Alpha	Beta	Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 40 41 42 43 44 45 46 47	Beta DPM/100 cm ²	Alpha	Beta

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707		
Survey Area. G		Survey Unit N/A		
Initiator/ Date	Release Date	Validation Date	Closure Date	
A 10/25/99				

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INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	0002	Building 707		Type 3	
Survey Area G		Survey Unit. N/A	1	Area (m ²) 640	
		t corner of room 22 ig 707 radiological a			
Survey Type			Classification		
RLC Survey X	FSS □		Class I Class	2 □ Class 3 □ U	Jnknown X
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
30	55	45	0	0	55
Building		Туре		Survey Area	
Survey Unit			Area (m²)		
Survey Unit Desc	cription				
Survey Type			Classification		
RLC Survey □	FSS 🗆		Class 1 ☐ Class		Jnknown 🗆
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building.		Туре	, , , , , , , , , , , , , , , , , , ,	Survey Area	
Survey Unit			Area (m²)		
Survey Unit Desc	cription		Area (m²)		
	cription		Area (m²) Classification		
Survey Unit Desc Survey Type RLC Survey □	FSS 🗆		Classification Class 1 □ Class	2 □ Class 3 □ U	Jnknown □
Survey Unit Desc		Equipment Surface Activity Measurements	Classification	2 □ Class 3 □ U Volumetric Samples	Jnknown □ Surface Activity Scans
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1 □ Class	Volumetric	Surface Activity
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1 □ Class	Volumetric	Surface Activity
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements	FSS Biased Surface Activity	Equipment Surface Activity Measurements	Classification Class 1 □ Class	Volumetric Samples	Surface Activity
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1	Volumetric Samples	Surface Activity
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1	Volumetric Samples	Surface Activity
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description Survey Type RLC Survey	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements Type	Classification Class 1	Volumetric Samples Survey Area	Surface Activity Scans Jnknown
Survey Unit Description Survey Type RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description Survey Type	FSS Bussed Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 Class Media Samples Area (m²)	Volumetric Samples Survey Area	Surface Activity Scans

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	Building · 707	
Survey Area: G	Survey Unit N/A	
Survey Unit Description: NORTH EAST CORNE AREA IS NORTH OF COLUMN D-14 AND EAST OF AREAS ARE POSTED AS FIXED CONTAMINATION	COLUMN G-13 BUILDING 707 R	
Building Information:		
Survey Type Reconnaissance Level Characterization S	urvey X Final Status Survey	
Building Type Type 1 □ Type 2 □ Type 3 X		
Classification Class 1 Class 2 Class 3 Ui	ıknown X	
Contaminants of Concern Plutonium X Uranium X	Other 🗆	
Justification for Classification: N/A		
Special Support Requirements: Ladder, mani- instrumentation may be required for access into	- · ·	
Special Safety Precautions: Access to overhead Review RWP requirements and surveys prior to overheads. Special security requirements for access to overhead security requirements.	entry Use caution when wor	
Isolation Controls:		
Level 1 Level 2 N/A X		
Labeling Requirements: NONE		
Labeling Requirements. NONE		
Survey Package Implementation:		
Coursey De along Classes		
Survey Package Closure:		
2	S Radiological Engineer Signature	Date
<u> </u>	A	N/A
	S Manager Signature	Date
S	S Manager Signature	Date

Package ID· 99-0	002 B	Suilding 707
Survey Area: G	S	urvey Unit N/A
•	=	220, 2 nd floor of Building 707 Area is North of adiological areas are posted as fixed contamination
Measurement	Number and Type	Comments
	<u> </u>	
Surface Activity Measurements	FLOORS/WALLS < 2 meters	SEE NOTE 1
Measurements	30 <u>unbiased</u> survey points uniformly distribution throughout the area	
	25 biased survey points at the following locations	SEE NOTE 3 SEE NOTE 4
	- Points around floors adjacent to intercontaminated equipment (where accessuch as glycol P-traps (plenums), hypumps, cathene system, etc	essible)
	- Point near each airlock to the plenum	ıs
	- Near waste drum storage	
	- Rooms 221, 222, 223, and maintenan cage area	nce
	- Stained/discolored areas	
	- Other areas of potential concern base RCT judgement/experience	ed on
	CEILINGS/WALLS > 2 meters	
	30 biased surveys (divided evenly between and ceiling when possible) with focus on following areas	n wall
	- Walls behind process lines	
	- Tops/sides of plenums	
	- Stained or discolored areas	
	- Areas around pipe or other penetration	ons
	EQUIPMENT	
	45 <u>biased</u> survey points on equipment wit or more samples from	h one
	- Equipment which has visible leaks o contained spills beneath them	r
	- Survey points at exhaust ducts	
	•	

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Fixed equipment in maintenance cage

Other areas of potential concern based on RCT judgement/experience

Package ID: 99-0002	Building 707
Survey Area: G	Survey Unit N/A

Survey Unit Description North East corner of room 220, 2nd floor of Building 707 Area is North of Column D-14 and East of Column G-13 Building 707 radiological areas are posted as fixed contamination areas

	Minimum Survey/Sampling Measure	ment Requirements
Measurement	Number and Type	Comments
Surface Scanning	FLOORS/WALLS < 2 meters 55 1 m² surface scans shall be taken at each location identified for non-scan surface activity measurements. Locations found above the DCGL shall be documented CEILINGS/WALLS > 2 meters NONE EQUIPMENT NONE	SEE NOTE 1 SEE NOTE 2 SEE NOTE 3 SEE NOTE 4
Media Samples	NONE (2 nd Floor of 707 does not have painted floors)	
Volumetric Samples	NONE	
Isotopic Gamma Scans	NONE	

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Survey Area: G Survey Unit N/A	

Survey Unit Description. North East corner of room 220, 2nd floor of Building 707 Area is North of Column D-14 and East of Column G-13 Building 707 radiological areas are posted as fixed contamination areas

Survey/Sampling Instructions

NOTE 1 Representative surveys of the area will be taken in accordance with 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements", for the following

- Direct alpha contamination
- Direct beta contamination
- Removable alpha contamination
- Removable beta contamination
- 1 m² scan measurements for alpha then beta/gamma contamination

NOTE 2 The RCT shall document the locations of all surveys performed and maintain with the survey instructions package

NOTE 3. Areas which are posted/considered High Contamination Areas (HCA's) or Airborne Radioactivity Areas (ARA's) do not require Reconnaissance Level Characterization (RLC) surveys and may be skipped

NOTE 4 Surveys in these areas may be difficult to obtain due to height and/or access limitations RCT's shall utilize best judgement as to safely accessing these areas Survey those areas that are readily accessible through reach tools, ladders, scaffolding and/or lift systems and where proper training has been received

Rev 9/99

SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID: 99-0002		Building: 707		
Survey Area· G		Survey Unit N/A		<u>,</u>
Change #	Description		Initiator/ Date	PRE
			·	

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SURVEY PACKAGE VALIDATION CHECKLIST FORM

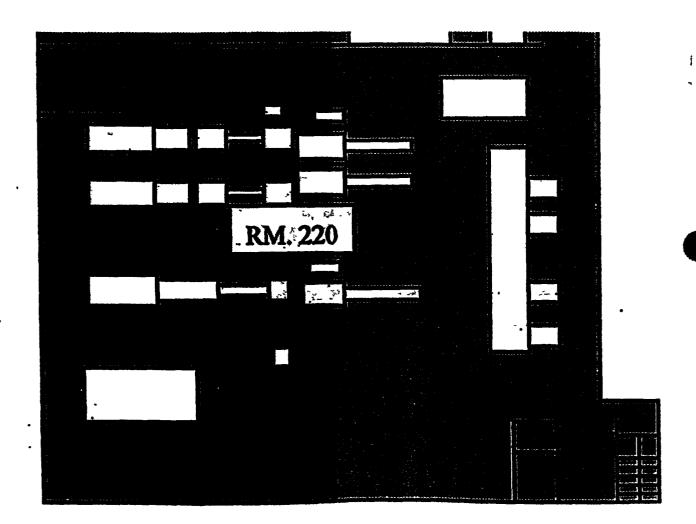
Package ID: 99-0002	Bu	ilding 707		
Survey Area: G	Sui	rvey Unit N/A		
Survey Type: Reconnaissance Level Characterization	Surve	y X Final Status Surve	<i>,</i> 🗆	
All Documentation Reviewed for Completion		RCT Supervisor	PRE	
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
All Surveys and Samples Accounted For		RCT Supervisor	PRE	
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
Comments				
	RCT	Supervisor Signature	Date	
	Protec	et RE Signature	Date	
			Date	
	RESS	Manager Signature	Date	

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al Due Cal Due	11	NSTRUMENT	DATA					
Model	lfg	Mfg	Mfg:_		Survey Ty	pe:		
Serial # Serial # Coatton' Dupose Suppose Su	fodel	Model	Mode	l l	Building _			
Alpha	erial #	Serial #			Location*_			
Bkg	al Due	Cal Due	Cal D	due	Purpose	···		
Removable Remo		Bkg	Bkg					
DA			Effici	ency	RWP#			
Date					_i			
Model			-		Date		Time	
Model	[fg				.			
Serial # Serial # Serial # Print name Signature Emp	lodel	Model					<u>/</u>	
Removable Remo	erial #	Serial #	Serial		_ P	rint name	Signat	ture Emp
Bkg	al Due	Cal Due						
Print name Signature Emp	kg	Bkg	Bkg.		- L			
SURVEY RESULTS SURVEY RESULTS	fficiency	Efficiency	Effici	iency	. P	rınt name	Signat	ture Emp
SURVEY RESULTS SURVEY RESULTS	DA	MDA	MDA	·	-			
2 28 4 29 5 30 6 31 7 32 8 33 9 34 10 35 11 36 12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	REMOVABLE	REMOVABLE	DIRECT	<u></u>		REMOVABLE	DIRECT	DIRECT
2 28 4 29 5 30 6 31 7 32 8 33 9 34 10 35 11 36 12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha	Beta	Alpha	Beta
4 29 5 30 6 31 7 32 8 33 9 34 10 35 11 36 12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26	Beta	Alpha	Beta
5 30 6 31 7 32 8 33 9 34 10 35 11 36 12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm ² 1 2	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27	Beta	Alpha	Beta
6 31 7 32 8 33 9 34 10 35 11 36 12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm² 1 2 3	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28	Beta	Alpha	Beta
8 33 9 34 10 35 11 36 12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm² 1 2 3	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28 29	Beta	Alpha	Beta
9 34 10 35 11 36 12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm² 1 2 3	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30	Beta	Alpha	Beta
10 35 11 36 12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm² 1 2 3 4 5 6 7	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta	Alpha	Beta
11 36 12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33	Beta	Alpha	Beta
12 37 13 38 14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34	Beta	Alpha	Beta
14 39 15 40 16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35	Beta	Alpha	Beta
15	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36	Beta	Alpha	Beta
16 41 17 42 18 43 19 44 20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta	Alpha	Beta
17	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Beta	Alpha	Beta
19	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Beta	Alpha	Beta
20 45 21 46 22 47 23 48 24 49	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41	Beta	Alpha	Beta
21	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Beta	Alpha	Beta
22	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta	Alpha	Beta
23 48 49	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Beta	Alpha	Beta
24 49	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Beta	Alpha	Beta
25 50	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta
	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Beta	Alpha	Beta
	Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Beta DPM/100 cm²	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	Beta	Alpha	Beta

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Rev. 05/98

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SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707		
Survey Area. H		Survey Unit N/A		
Initiator/ Date	Release Date	Validation Date Closure Date		
JJ 10/25/29				

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INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	002	Building 707		Type 3	
Survey Area H		Survey Unit. N/A	\ \	Area (m²) 640	
				ding 707 Area is Nas fixed contaminat	
Survey Type			Classification		
RLC Survey X	FSS □		Class 1 Class	2 □ Class 3 □ U	Jnknown X
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Samples		Surface Activity Scans
30	55	45	0	0	55
Building		Туре		Survey Area	
Survey Unit.			Area (m²)		
Survey Unit Desc	ription·				
Survey Type·			Classification		
RLC Survey 🛘	FSS 🗆		Class 1 Class:	2 □ Class 3 □ U	Jnknown 🗆
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building.		Туре		Survey Area	
Dunding.		Type		Survey men	
Survey Unit		Туре	Area (m²)	Survey Area	
	ription	Туре	Area (m²)	Survey Arrea	
Survey Unit	cription	Туре	Area (m²) Classification	Survey Arrea	
Survey Unit Survey Unit Desc	FSS 🗆	Туре			Jnknown □
Survey Unit Description Survey Type.		Equipment Surface Activity Measurements	Classification		Jnknown □ Surface Activity Scans
Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1	2 □ Class 3 □ U	Surface Activity
Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1	2 □ Class 3 □ U	Surface Activity
Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements	FSS Biased Surface Activity	Equipment Surface Activity Measurements	Classification Class 1	2 Class 3 U Volumetric Samples	Surface Activity
Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements Building	FSS Brased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1	2 Class 3 U Volumetric Samples	Surface Activity
Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit	FSS Brased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1	2 Class 3 U Volumetric Samples	Surface Activity
Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description	FSS Brased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 Class Media Samples Area (m²) Classification Class 1 Class	2 Class 3 UVolumetric Samples	Surface Activity
Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description Survey Unit Description	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 Class Media Samples Area (m²)	2 Class 3 UVolumetric Samples	Surface Activity Scans

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	Building: 707			
Survey Area: H	Survey Unit N/A			
Survey Unit Description: NORTH WEST CORNER OF ROOM 220, 2 ND FLOOR OF BUILDING 707 AREA IS NORTH OF COLUMN K-14 AND WEST OF COLUMN G-13 BUILDING 707 RADIOLOGICAL AREAS ARE POSTED AS FIXED CONTAMINATION AREAS				
Building Information:				
Survey Type Reconnaissance Level Characterizati	on Survey X Final Status Survey [
Building Type Type 1 □ Type 2 □ Type 3 X				
Classification Class 1 Class 2 Class 3	Unknown X			
Contaminants of Concern Plutonium X Uranium				
Justification for Classification: N/A				
dustification for Classification. 1971				
Special Support Requirements: Ladder, minstrumentation may be required for access in	•			
Review RWP requirements and surveys price	Special Safety Precautions: Access to overhead areas may require additional controls Review RWP requirements and surveys prior to entry Use caution when working in overheads Special security requirements for access to 2 nd floor			
Isolation Controls:				
Level 1 🗆 Level 2 🗆 N/A X				
Labeling Requirements: NONE				
Labeling Requirements: 14014L				
Survey Package Implementation:	Survey Package Implementation:			
		411 41		
RESS Manager Printed Name Employee #	RESS Manager Signature	Date		
Survey Package Closure:				
	iological Engineer Signature	Date		
	ological Engineer Signature	Date N/A		
	ager Sugnature			
	lager Signature	Date		
	acce Constu-	Dete		
	ager Signature	Date		

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Package ID: 99-00	002	Building 707	
Survey Area: H		Survey Unit N/A	
		220, 2 nd floor of Building 707 Area is North of radiological areas are posted as fixed contamination	
	Minimum Survey/Sampling M	easurement Requirements	
Measurement	Number and Type	Comments	
Surface Activity	FLOORS/WALLS < 2 meters	SEE NOTE 1	
Measurements	30 <u>unbiased</u> survey points uniformly dist throughout the area	ributed SEE NOTE 2	
	25 biased survey points at the following locations	SEE NOTE 3 SEE NOTE 4	
	- Points around floors adjacent to inte- contaminated equipment (where acc such as glycol P-traps (plenums), hy pumps, cathene system, etc	rnally essible)	
	- Point near each airlock to the plenui	ns	
	- Near waste drum storage		
	- Rooms 221, 222, 223, and maintena cage area	nce	
	- Stained/discolored areas		
	- Other areas of potential concern bas RCT judgement/experience	ed on	
	CEILINGS/WALLS > 2 meters		
	30 <u>biased</u> surveys (divided evenly between and ceiling when possible) with focus on following areas	n wall	
	- Walls behind process lines		
	- Tops/sides of plenums		
	- Stained or discolored areas		
	- Areas around pipe or other penetrati	ons	
	EQUIPMENT		
	45 <u>biased</u> survey points on equipment wi or more samples from	th one	
	- Equipment which has visible leaks of contained spills beneath them	ır	
	- Survey points at exhaust ducts		
	- 5 survey points on top of overhead (where locations are accessible)	piping	
	- Fixed equipment in maintenance case	e	
	- Other areas of potential concern bas RCT judgement/experience	ed on	

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Package ID: 99-0002	Building 707
Survey Area. H	Survey Unit N/A

Survey Unit Description: North West corner of room 220, 2nd floor of Building 707 Area is North of Column K-14 and West of Column G-13 Building 707 radiological areas are posted as fixed contamination areas

	Minimum Survey/Sampling Measure	ement Requirements
Measurement	Number and Type	Comments
urface Scanning	FLOORS/WALLS < 2 meters	SEE NOTE 1
	55 1 m ² surface scans shall be taken at each location identified for surface activity	SEE NOTE 2
	measurements Locations found above the	SEE NOTE 3
	DCGL shall be documented	SEE NOTE 4
	CEILINGS/WALLS > 2 meters	
	NONE	
	EQUIPMENT NONE	
Media Samples	NONE	
	(2 nd Floor of 707 does not have painted floors)	
Volumetric	NONE	
amples		
sotopic Gamma	NONE	
Scans		
		1

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Package ID: 99-0002

Building 707

Survey Area: H

Survey Unit. N/A

Survey Unit Description. North West corner of room 220, 2nd floor of Building 707 Area is North of Column K-14 and West of Column G-13 Building 707 radiological areas are posted as fixed contamination areas

Survey/Sampling Instructions

NOTE 1 Representative surveys of the area will be taken in accordance with 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements", for the following

- Direct alpha contamination
- Direct beta contamination
- Removable alpha contamination
- Removable beta contamination
- lm² scan measurements for alpha then beta/gamma contamination

NOTE 2 The RCT shall document the locations of all surveys performed and maintain with the survey instructions package

NOTE 3: Areas which are posted/considered High Contamination Areas (HCA's) or Airborne Radioactivity Areas (ARA's) do not require Reconnaissance Level Characterization (RLC) surveys and may be skipped

NOTE 4 Surveys in these areas may be difficult to obtain due to height and/or access limitations RCT's shall utilize best judgement as to safely accessing these areas. Survey those areas that are readily accessible through reach tools, ladders, scaffolding and/or lift systems and where proper training has been received

Rev 9/99

SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID 99-0002	Bu	alding 707	
Survey Area: H	Su	rvey Unit N/A	
Change #	Description	Initiator/ Date	PRE
			

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SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID: 99-0002		Building: 707		
Survey Area: H Su		Survey Unit N/A		
Survey Type: Reconnaissance Level Characterization Survey X Final Status Survey □				
All Documentation Reviewed for Completion		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
All Surveys and Samples Accounted For		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
Comments				
		THE RESERVE OF THE PARTY OF THE		
	RCT	Supervisor Signature		Date
-	_	. DE C		
	Ртоје	ct RE Signature		Date
	RESS	S Manager Signature		Date

Rev 9/99

I	nstrument						
Mfg	Mfg	Mfg.		Survey Ty	pe:		
Model	Model	Mode	:ll	_ Building _			
Serial #	Serial #	Seria	1#	_ Location*_			
Cal Due		Cal I)ue	Purpose			
3kg	Bkg			_			
Efficiency	Efficiency		iency	RWP #			
MDA	MDA	MDA	·	-1			
				Date		Time	
Mfg	Mfg	Mfg		.			
Model	Model		el				
Serial #	Serial #	Seria	1#	- F	rint name	Signat	ture Emp #
Cal Due	Cal Due)ue	- D.C.		,	,
Bkg	Bkg.			_ RCT		<u>/</u>	/
Efficiency			iency	. P	rint name	Signat	ture Emp #
MDA	MDA	MDA	\				
			SURVEY	RESULTS			
REMOVABLE Aloha	REMOVABLE Beta	DIRECT Alpha	SURVEY DIRECT Beta	RESULTS REMOVABLE Alpha	REMOVABLE Beta	DIRECT Alpha	DIRECT Beta
REMOVABLE Alpha DPM/100 cm²		DIRECT Alpha DPM/100 cm²	DIRECT	REMOVABLE Alpha DPM/100 cm ²			
Alpha DPM/100 cm²	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26	Beta	Alpha	Beta
Alpha	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28 29	Beta	Alpha	Beta
Alpha DPM/100 cm ² 1 2 3	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30	Beta	Alpha	Beta
Alpha DPM/100 cm ² 1 2 3 4	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta	Alpha	Beta
Alpha DPM/100 cm ² 1 2 3 4	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36	Beta	Alpha	Beta
Alpha DPM/100 cm ² 1 2 3 4 5 6 7 8 9 10 11 12	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Beta DPM/100 cm²	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	Beta	Alpha	Beta

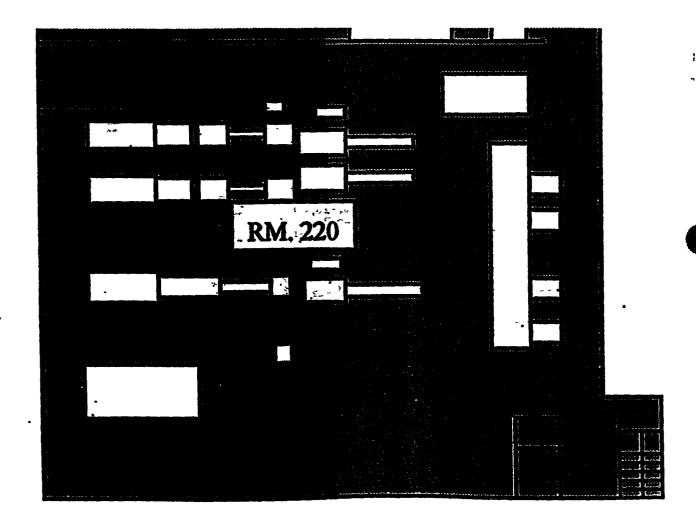
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REFORMS 07.02

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Rev. 05/98

Rev

SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707			
Survey Area: I		Survey Unit N/A			
Initiator/ Date	Release Date	Validation Date	Closure Date		
A 10/25/99					
	-				
			·		
			·		

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INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	002	Building 707		Type 3		
Survey Area I	Area I Survey Unit · N/A			Area (m ²) 640		
Survey Unit Description South East corner of room 22 14 and East of Column G-15 Building 707 radiological						
Survey Type			Classification			
RLC Survey X	FSS □		Class 1 Class	2 □ Class 3 □ U	Jnknown X	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
30	55	45	0	0	55	
Building		Туре		Survey Area		
Survey Unit			Area (m²)			
Survey Unit Description						
Survey Type			Classification			
RLC Survey □	FSS 🗆		Class 1 Class:		Jnknown 🗆	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
!						
Building. Type		Survey Area				
Survey Unit		Area (m²)				
Survey Unit Description						
Survey Type			Classification			
RLC Survey □	FSS 🗆		Class 1 Class :	2 □ Class 3 □ U	Inknown 🗆	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
Building		Туре	Survey Area			
Survey Unit			Area (m²)			
Survey Unit Desc	cription					
Survey Type.	· · · · · · · · · · · · · · · · · · ·		Classification			
RLC Survey □	FSS □		Class 1 🗆 Class	2 □ Class 3 □ U	Jnknown □	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
,						

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	Building: 707			
Survey Area: I	Survey Unit: N/A			
Survey Unit Description: SOUTH EAST CORNER OF ROOM 220, 2 ND FLOOR OF BUILDING 707 AREA IS SOUTH OF COLUMN D-14 AND EAST OF COLUMN G-15 BUILDING 707 RADIOLOGICAL AREAS ARE POSTED AS FIXED CONTAMINATION AREAS				
Building Information:				
Survey Type Reconnaissance Level Characterization	Survey X Final Status Survey			
Building Type Type 1 Type 2 Type 3 X				
Classification Class 1 Class 2 Class 3	Unknown X			
Contaminants of Concern Plutonium X Uranium 2	【 Other □			
Justification for Classification: N/A	<u> </u>			
Special Support Requirements: Ladder, ma				
instrumentation may be required for access in	to overhead areas – use caution	n in overneads		
Special Safety Precautions: Access to overl Review RWP requirements and surveys prior overheads Special security requirements for	to entry Use caution when we			
Isolation Controls:				
Level 1 D Level 2 D N/A X				
Labeling Peguiroments: NONE				
Labeling Requirements: NONE				
Survey Package Implementation:				
	RESS Manager Signature	Date		
Survey Package Closure:				
	Radiological Engineer Signature	Date		
	A	N/A		
	Manager Signature	Date		
RESS Manager Printed Name Employee #	ESS Manager Signature	Date		

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Package ID: 99-0002		Building 707	
Survey Area: I		Survey Unit N/A	
Survey Unit Description: South East corner of room 2 Column D-14 and East of Column G-15 Building 707 ra areas			
	Mınımum Survey/Sampling	Measurer	nent Requirements
Measurement	Number and Type		Comments
Surface Activity	FLOORS/WALLS < 2 meters		SEE NOTE 1
Measurements	30 <u>unbiased</u> survey points uniformly d throughout the area	ıstrıbuted	SEE NOTE 2
	25 biased survey points at the following	g	SEE NOTE 3
	locations		SEE NOTE 4
	Points around floors adjacent to a contaminated equipment (where a such as glycol P-traps (plenums), pumps, cathene system, etc	ccessible)	
	- Point near each airlock to the plea	nums	
	- Near waste drum storage		
	- Rooms 221, 222, 223, and mainted cage area	nance	
	- Stained/discolored areas		
	- Other areas of potential concern based on RCT judgement/experience		
	CEILINGS/WALLS > 2 meters		
	30 biased surveys (divided evenly betward ceiling when possible) with focus following areas		
	- Walls behind process lines		
	- Tops/sides of plenums		
	- Stained or discolored areas		
	- Areas around pipe or other penetr	ations	
	EQUIPMENT		
	45 biased survey points on equipment with one or more samples from		
	- Equipment which has visible leak contained spills beneath them	s or	
	- Survey points at exhaust ducts		
	- 5 survey points on top of overhead (where locations are accessible)	ad piping	
	- Fixed equipment in maintenance	cage	
	- Other areas of potential concern b	_	

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Package ID: 99-0002	Building 707
Survey Area: I	Survey Unit N/A

Survey Unit Description. South East corner of room 220, 2nd floor of Building 707 Area is South of Column D-14 and East of Column G-15 Building 707 radiological areas are posted as fixed contamination areas

	Minimum Survey/Sampling Measure	ment Requirements
Measurement	Number and Type	Comments
urface Scanning	FLOORS/WALLS < 2 meters	SEE NOTE 1
	55 1 m ² surface scans shall be taken at each	SEE NOTE 2
	location identified for surface activity measurements Locations found above the	SEE NOTE 3
	DCGL shall be documented	SEE NOTE 4
	CELL INCOME A LA CALLA	
	CEILINGS/WALLS > 2 meters NONE	
	EQUIPMENT	
	NONE	
edia Samples	NONE	
odiu odinpies	(2 nd Floor of 707 does not have painted floors)	
olumetric	NONE	
amples		
	NOVE	
sotopic Gamma cans	NONE	
Jan 13		

Package ID: 99-0002	Building 707
Survey Area. I	Survey Unit: N/A
Survey Unit Description: South East corner of room 220, 2 nd floor of Building 707 Area is South of Column D-14 and East of Column G-15 Building 707 radiological areas are posted as fixed contamination areas	
Survey/Sampli	ng Instructions
NOTE 1. Democratative surrous of the energy will be taken in accordance with 2 DDO 165 DSD 07.00	

NOTE 1 Representative surveys of the area will be taken in accordance with 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements", for the following

- Direct alpha contamination
- Direct beta contamination
- Removable alpha contamination
- Removable beta contamination
- 1m² scan measurements for alpha then beta/gamma contamination

NOTE 2. The RCT shall document the locations of all surveys performed and maintain with the survey instructions package

NOTE 3. Areas which are posted/considered High Contamination Areas (HCA's) or Airborne Radioactivity Areas (ARA's) do not require Reconnaissance Level Characterization (RLC) surveys and may be skipped

NOTE 4 Surveys in these areas may be difficult to obtain due to height and/or access limitations RCT's shall utilize best judgement as to safely accessing these areas. Survey those areas that are readily accessible through reach tools, ladders, scaffolding and/or lift systems and where proper training has been received

SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID: 99-0002	Building	Building 707 Survey Unit N/A			
Survey Area: I	Survey U				
Change #	Description	Initiator/ Date	PRE		
			70-11-2-11/20		
			··		
			· ·		
	·				

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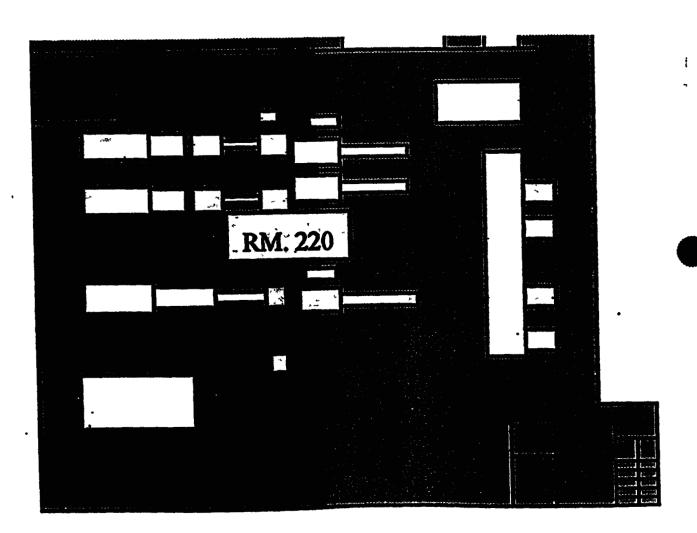
SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID: 99-0002	Building 707			
Survey Area: I	vey Area: I Survey Unit N/A			
Survey Type: Reconnaissance Level Characterization Survey X Final Status Survey □				
All Documentation Reviewed for Completion		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				- Add - Park - P
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
All Surveys and Samples Accounted For		RCT Supervisor		PRE
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
Comments			1	
	1			
	RCT	Supervisor Signature		Date
	Proje	ct RE Signature		Date
	RES	S Manager Signature		Date

	INSTRUMENT			•			
[fg	Mfg			Survey Typ	pe:		
lodel	Model	Mode	Model Building				
erial #	_ Serial #	Serial	Serial # Location*		·		
al Due			Oue				
kg				_			
ficiency	Efficiency	Effici	iency	RWP#			
DA		MDA	<u> </u>	_			
				Date		Time	
fg	Mfg	Mfg		.			
odel	Model	Mode	el				
rıal #	_ Serial #	Serial	1#	_ P	rınt name	Signat	ture Emp
ıl Due	Cal Due	Cal D)ue	_			
rg	Bkg	Bkg.		_ RCT			
ficiency		Effici	iency	. P	rint name	Signat	ture Emp
DA	MDA	MDA	<u> </u>	<u>- L</u>			
PEMOVAR	I D DUMOVARI R	nighti	SURVEY		REMOVABLE	DIRECT	DIRECT
REMOVAE Alpha DPM/100 c	Beta	DIRECT Alpha DPM/100 cm²	SURVEY I DIRECT Beta DPM/100 cm²	RESULTS REMOVABLE Alpha DPM/100 cm²	REMOVABLE Beta DPM/100 cm ²	DIRECT Alpha DPM/100 cm²	DIRECT Beta DPM/100 cm ²
	Beta		DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26	Beta	Alpha	Beta
Alpha	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28 29	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 3 4 5 6 8	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 3 4 5 6 7 8	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 3 4 5 6 7 8 9 10 11	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10 11. 12 13 14	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10 11. 12 13 14 15	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10 11. 12 13 14 15 16	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10 11. 12 13 14 15 16 17	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10 11. 12 13 14 15 16	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10 11. 12 13 14 15 16 17 18 19 20	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10 11. 12 13 14 15 16 17 18 19 20 21	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10 11. 12 13 14 15 16 17 18 19 20 21 22	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta DPM/100 cm ²	Alpha	Beta
Alpha DPM/100 c 1 2 3 4 5 6 7 8 9 10 11. 12 13 14 15 16 17 18 19 20 21	Beta m² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Beta DPM/100 cm ²	Alpha	Beta

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707 Survey Unit N/A		
Survey Area: J				
Initiator/ Date	Release Date	Validation Date	Closure Date	
M 10/25/19				
1111 19119 1				
				
			<u> </u>	
	·			

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INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	002	Building 707		Type 3	
Survey Area J Survey Unit N/A			Area (m ²) 640		
Survey Unit Description South West corner of room 2 K-14 and West of Column G-15 Building 707 radiologic					
Survey Type			Classification		
RLC Survey X	FSS □		Class 1 🗆 Class	2 □ Class 3 □ U	Jnknown X
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
30	55	45	0	0	55
Building		Туре		Survey Area	
Survey Unit.			Area (m²)		
Survey Unit Desc	ription				
Survey Type			Classification		
RLC Survey □	FSS □		Class 1 □ Class 2 □ Class 3 □ Unknown □		
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building.		Туре	Survey Area		
Survey Unit			Area (m²)		
Survey Unit Desc	ription				
Survey Type			Classification		
RLC Survey □	FSS □		Class 1 □ Class 2 □ Class 3 □ Unknown □		
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Media Samples Activity Measurements		Volumetric Samples	Surface Activity Scans
Building Type		Survey Area			
Survey Unit			Area (m²)		
Survey Unit Desc	ription				
Survey Type			Classification		
RLC Survey □	FSS 🗆		Class 1 Class :	2 □ Class 3 □ U	Jnknown □
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	Building 707	
Survey Area: J	Survey Unit. N/A	
Survey Unit Description: SOUTH WEST CO AREA IS SOUTH OF COLUMN K-14 AND WEST AREAS ARE POSTED AS FIXED CONTAMINAT	OF COLUMN G-15 BUILDING	
Building Information:		
Survey Type Reconnaissance Level Characterizati	ion Survey X Final Status Survey	, 0
Building Type Type 1 Type 2 Type 3 X		
Classification Class 1 Class 2 Class 3	Unknown X	
Contaminants of Concern Plutonium X Uranium	X Other 🗆	_
Justification for Classification: N/A		
Special Support Requirements: Ladder, manufacture instrumentation may be required for access		
Special Safety Precautions: Access to ove Review RWP requirements and surveys price overheads. Special security requirements for	or to entry Use caution when	
Isolation Controls:		
Level 1 🗆 Level 2 🗖 N/A X		Ì
Labeling Requirements: NONE		
Survey Package Implementation:		
		-
RESS Manager Printed Name Employee #	RESS Manager Signature	Date
Survey Package Closure:		
	diological Engineer Signature	Date
		N/A
	nager Signature	Date
	nager Signature	Date

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Package ID: 99-0002		Building. 707		
Survey Area: J		Survey Unit N/A		
•	-	n 220, 2 nd floor of Building 707 Area is South of 7 radiological areas are posted as fixed contamination		
	Minimum Survey/Sampling M	leasurement Requirements		
Measurement	Number and Type	Comments		
Surface Activity	FLOORS/WALLS < 2 meters	SEE NOTE 1		
Measurements	30 unbiased survey points uniformly dist	see NOTE 2		
	throughout the area 25 <u>biased</u> survey points at the following	SEE NOTE 3		
	locations	SEE NOTE 4		
	- Points around floors adjacent to inte contaminated equipment (where acc such as glycol P-traps (plenums), hy pumps, cathene system, etc	cessible)		
	- Point near each airlock to the plenu	ms		
	- Near waste drum storage			
	- Rooms 221, 222, 223, and maintena cage area	ance		
	- Stained/discolored areas			
	- Other areas of potential concern bas RCT judgement/experience	sed on		
	CEILINGS/WALLS > 2 meters			
	30 biased surveys (divided evenly betwee and ceiling when possible) with focus on following areas			
	- Walls behind process lines			
	- Tops/sides of plenums			
	- Stained or discolored areas			
	- Areas around pipe or other penetrat	ions		
	EQUIPMENT			
	45 biased survey points on equipment will or more samples from	ath one		
	- Equipment which has visible leaks contained spills beneath them	or		
	- Survey points at exhaust ducts			
	- 5 survey points on top of overhead (where locations are accessible)	piping		
	- Fixed equipment in maintenance ca	ge		
	i	I		

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Other areas of potential concern based on RCT judgement/experience

Package ID: 99-0002	Building: 707
Survey Area: J	Survey Unit N/A
C	- 220 2nd d - CD 11 - 707 A C-4 - C

Survey Unit Description. South West corner of room 220, 2nd floor of Building 707 Area is South of Column K-14 and West of Column G-15 Building 707 radiological areas are posted as fixed contamination areas

Minimum Survey/Sampling Measurement Requirements			
Measurement	Number and Type	Comments	
Surface Scanning	FLOORS/WALLS < 2 meters 55 1 m ² surface scans shall be taken at each location identified for surface activity measurements. Locations found above the	SEE NOTE 1 SEE NOTE 2 SEE NOTE 3	
	DCGL shall be documented CEILINGS/WALLS > 2 meters	SEE NOTE 4	
	NONE EQUIPMENT NONE		
Media Samples	NONE (2 nd Floor of 707 does not have painted floors)		
Volumetric Samples	NONE		
Isotopic Gamma Scans	NONE		

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Package ID: 99-0002	Building 707
Survey Area: J	Survey Unit N/A
Courses Hart Decomptions Court West comes of se	om 220 2nd floor of Duilding 707 Area is South of

Survey Unit Description: South West corner of room 220, 2nd floor of Building 707 Area is South of Column K-14 and West of Column G-15 Building 707 radiological areas are posted as fixed contamination areas

Survey/Sampling Instructions

NOTE 1 Representative surveys of the area will be taken in accordance with 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements", for the following

- Direct alpha contamination
- Direct beta contamination
- Removable alpha contamination
- Removable beta contamination
- 1m² scan measurements for alpha then beta/gamma contamination

NOTE 2. The RCT shall document the locations of all surveys performed and maintain with the survey instructions package

NOTE 3 Areas which are posted/considered High Contamination Areas (HCA's) or Airborne Radioactivity Areas (ARA's) do not require Reconnaissance Level Characterization (RLC) surveys and may be skipped

NOTE 4. Surveys in these areas may be difficult to obtain due to height and/or access limitations RCT's shall utilize best judgement as to safely accessing these areas. Survey those areas that are readily accessible through reach tools, ladders, scaffolding and/or lift systems and where proper training has been received.

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SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID: 99-0002		Building. 707		
Survey Area: J	Surv	Survey Unit N/A		
Change #	Description	Initiator/ Date	PRE	

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SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID: 99-0002	Bui	lding 707			
Survey Area: J	Sur	vey Unit N/A			
Survey Type: Reconnaissance Level Characterization Survey X Final Status Survey □					
All Documentation Reviewed for Completion		RCT Supervisor	PRE		
Scan Surveys					
Total Activity Surveys					
Exposure Rate Surveys					
Removable Surveys					
Media Samples					
Volumetric Samples					
All Surveys and Samples Accounted For		RCT Supervisor	PRE		
Scan Surveys					
Total Activity Surveys					
Exposure Rate Surveys					
Removable Surveys					
Media Samples					
Volumetric Samples					
Comments					
	.,				
		and the second s			
	Project	RE Signature	Date		
RESS Manager France Name Employee	RESS I	Manager Signature	Date		

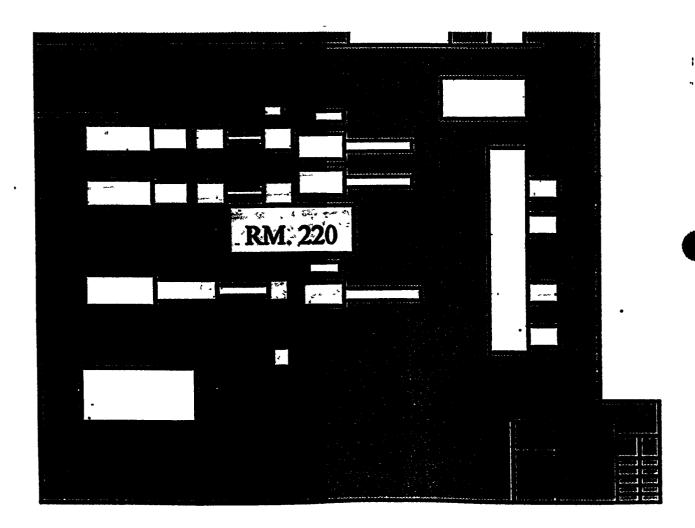
99

208/466

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I	ISTRUMENT	'DATA		_			
fg	Mfg	Mfg	- ,	Survey Ty	pe:		
odel	Model			Building _			
rial #	Serial #	Serial	#	Location*_			
d Due	Cal Due	Cal D	ue	Purpose			
(g	Bkg	Bkg _		_			
ficiency	Efficiency	Efficie	ency	RWP#			
DA	MDA	MDA		_			
				Date		Time	
fg	Mfg	Mfg _					
odel	Model	Model	l	RCT		/	/
rıal #	Serial #	Serial	#	_ P	rint name	Signat	ture Emp
ıl Due	Cal Due		ue	.			
(g	Bkg	Bkg		_ RCT		<u>/</u>	/
ficiency	Efficiency	Efficie	ency	. P	rint name	Signat	ture Em
DA	MDA	MDA					_
REMOVABLE	REMOVABLE	DIRECT	SURVEY DIRECT	REMOVABLE	REMOVABLE	DIRECT	DIRECT
REMOVABLE Alpha DPM/100 cm² 1 2	REMOVABLE Beta DPM/100 cm ²	DIRECT Alpha DPM/100 cm ²		REMOVABLE Alpha DPM/100 cm² 26 27	REMOVABLE Beta DPM/100 cm ²	DIRECT Alpha DPM/100 cm²	DIRECT Beta DPM/100 cm ²
Alpha DPM/100 cm² 1	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28	Beta	Alpha	Beta
Alpha DPM/100 cm² 1	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28 29	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Beta	Alpha	Beta
Aipha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta	Alpha	Beta
Aipha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta

RADIOLOGICAL SAFETY Drawing Showing Survey Points



SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707		
Survey Area: K		Survey Unit N/A		
Initiator/ Date Release Date		Validation Date Closure Da		
10/25/49				
W your				
				
	<u> </u>			
	·			
			<u></u>	

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INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	0002	Building 707		Type 3	
Survey Area K		Survey Unit N/A	1	Area (m ²) 523	
Survey Unit Desc Columns M-3, N		portion of room 2	240, 2 nd floor of B	uilding 707 Area	ıs North of
Survey Type			Classification		
RLC Survey X	FSS □		Class 1 □ Class	2 □ Class 3 □ U	Jnknown X
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
30	55	45	0	0	55
Building		Туре		Survey Area	<u> </u>
Survey Unit			Area (m²)		
Survey Unit Desc	cription.				
Survey Type			Classification		
RLC Survey □	FSS □		Class 1 □ Class	2 □ Class 3 □ U	Jnknown □
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building		Туре		Survey Area	
Survey Unit		· · · · · ·	Area (m²)		
Survey Unit Desc	cription				
Survey Type.			Classification		
RLC Survey □	FSS □		Class 1 □ Class	2 □ Class 3 □ U	Jnknown □
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building.		Туре		Survey Area	
Survey Unit			Area (m²)		
Survey Unit Desc	cription				
Survey Type	,		Classification		
RLC Survey □	FSS □		Class 1 □ Class	2 □ Class 3 □ U	Jnknown 🗆
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	Building, 707	
Survey Area: K	Survey Unit. N/A	
Survey Unit Description: NORTHERN PORTION AREA IS NORTH OF COLUMNS M-3, N-3, O-3, P-3 I POSTED AS FIXED CONTAMINATION AREAS	OF ROOM 240, 2 ND FLOOR OF B BUILDING 707 RADIOLOGICAL	UILDING 707 AREAS ARE
Building Information:		
Survey Type Reconnaissance Level Characterization S	urvey X Final Status Survey 🗆	
Building Type Type 1 ☐ Type 2 ☐ Type 3 X		
Classification Class 1 □ Class 2 □ Class 3 □ Ur	ıknown X	
Contaminants of Concern Plutonium X Uranium X	Other 🗆	
Justification for Classification: N/A		
Special Support Requirements: Ladder, mani- instrumentation may be required for access into		
Special Safety Precautions: Access to overhead Review RWP requirements and surveys prior to overheads Special security requirements for access to overhead security requirements.	entry Use caution when wor	
Isolation Controls:		
Level 1 🗆 Level 2 🗅 N/A X		
Labeling Requirements: NONE		
Survey Package Implementation:		
	7	
Survey Package Closure:		
	S Radiological Engineer Signature	Date
	A	N/A
	S Manager Signature	Date
RESS Manager Printed Name Employee # RES	S Manager Signature	Date

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Package ID: 99-0002		Building 707	
Survey Area: K		Survey Unit N/A	
	n 240, 2 nd floor of Building 707 Area is North of al areas are posted as fixed contamination areas		
	Minimum Survey/Sampling	Measurement Requirements	
Measurement	Number and Type	Comments	
Surface Activity Measurements	FLOORS/WALLS < 2 meters · 30 unbiased survey points uniformly d	SEE NOTE 1 SEE NOTE 2	
	throughout the area.	SEE NOTE 3	
	25 <u>biased</u> survey points at the following locations	SEE NOTE 4	
	Points around floors adjacent to it contaminated equipment (where a such as glycol P-traps (plenums), pumps, etc	accessible)	
	- Point near each airlock to the plei	nums	
	Near waste drum storage Other areas of potential concern be	acced on	
	RCT judgement/experience	ascu on	
	CEILINGS/WALLS > 2 meters		
	30 <u>biased</u> surveys (divided evenly betward ceiling when possible) with focus following areas		
	- Walls behind process lines		
	- Tops/sides of plenums		
	- Stained or discolored areas		
	- Areas around pipe or other penetr	ations	
	EQUIPMENT		
	45 <u>biased</u> survey points on equipment or more samples from	with one	
	- Equipment which has visible leak contained spills beneath them	s or	
	- Survey points at exhaust ducts		
	- 5 survey points on top of overhead (where locations are accessible)	ad piping	
	- Other areas of potential concern to RCT judgement/experience	pased on	

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Package ID: 99-0002	Building 707
Survey Area· K	Survey Unit N/A

Survey Unit Description: Northern portion of room 240, 2nd floor of Building 707 Area is North of Columns M-3, N-3, O-3, P-3 Building 707 radiological areas are posted as fixed contamination areas

Minimum Survey/Sampling Measurement Requirements			
Measurement	Number and Type	Comments	
Surface Scanning	FLOORS/WALLS < 2 meters	SEE NOTE 1	
	55 1 m ² surface scans shall be taken at each location identified for surface activity	SEE NOTE 2	
	measurements Locations found above the	SEE NOTE 3	
	DCGL shall be documented	SEE NOTE 4	
	CEILINGS/WALLS > 2 meters		
	NONE		
	EQUIPMENT		
	NONE		
Media Samples	NONE		
	(2 nd Floor of 707 does not have painted floors)		
/olumetric	NONE		
Samples			
	NONE		
sotopic Gamma Scans	NONE		

Package ID: 99-0002	Building 707			
Survey Area· K	Survey Unit N/A			
Survey Unit Description: Northern portion of room 240, 2 nd floor of Building 707 Area is North of Columns M-3, N-3, O-3, P-3 Building 707 radiological areas are posted as fixed contamination areas				
Survey/Sampli	ng Instructions			
NOTE 1 Representative surveys of the area will be take "Contamination Monitoring Requirements", for the followant of the contamination - Direct beta contamination - Removable alpha contamination - Removable beta contamination	wing			
- 1m ² scan measurements for alpha then beta/gamma of				
NOTE 2 The RCT shall document the locations of all s instructions package	urveys performed and maintain with the survey			
NOTE 3. Areas which are posted/considered High Conta Areas (ARA's) do not require Reconnaissance Level Cha				
NOTE 4. Surveys in these areas may be difficult to obta utilize best judgement as to safely accessing these areas reach tools, ladders, scaffolding and/or lift systems and was a second tools.	Survey those areas that are readily accessible through			

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SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID: 99-0002	Building	Building 707		
Survey Area: K	Survey U	Survey Unit: N/A		
Change #	Description	Initiator/ Date	PRE	
			7,3,4,4,4,4	
				

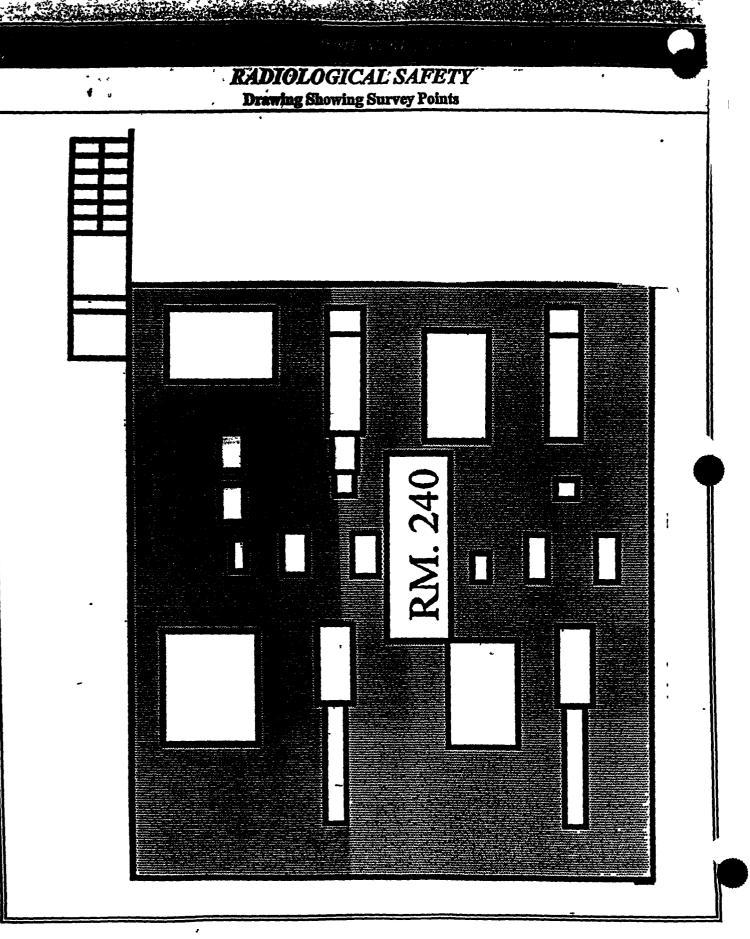
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SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID: 99-0002	Building 707			
Survey Area: K	Survey Unit· N/A			
Survey Type: Reconnaissance Level Characterization	Survey X Final Status Surve	еу 🗆		
All Documentation Reviewed for Completion	RCT Supervisor	PRE		
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
All Surveys and Samples Accounted For	RCT Supervisor	PRE		
Scan Surveys				
Total Activity Surveys				
Exposure Rate Surveys				
Removable Surveys				
Media Samples				
Volumetric Samples				
Comments				
·				
	RCT Supervisor Signature	Date		
	Project RE Signature	Date		
	Troject NE Signature	Date		
	RESS Manager Signature	Date		

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	nstrument			1			
lfg	Mfg	Mfg.	Mfg. Survey Type:				
fodel	Model	Mode	Model Building.				
erial #	Serial #	Seria	Serial # Location*				
al Due	Cal Due		Cal Due Purpose				
kg	Bkg			-1			
fficiency			iency	. RWP#			
MDA	MDA	MDA	\	- 5		m	
1 5-).fc)./f-		Date		Time	
1fg 1odel	Mfg Model	Mig	el	RCT		,	,
erial #	Serial #	Mode	1#		Print name	/ Signat	ture Emp.
	Cal Due		Due	- *	Thit hante	Signa	tute Emp.
lai Due	Rka	Car L	Jue	RCT		1	j
Skg	Bkg Efficiency	Effic	iency	-,	Print name	Signat	ture Emp
MDA	MDA		\	· ^	Thit hamo	Oigna	ture Emp
REMOVABLE	REMOVABLE	DIRECT	SURVEY DIRECT	RESULTS REMOVABLE	REMOVABLE	DIRECT	DIRECT
Alpha DPM/100 cm² 1 2 3	REMOVABLE Bota DPM/100 cm²	DIRECT Alpha DPM/100 cm²	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm ² 26 27 28	REMOVABLE Beta DPM/100 cm ²	DIRECT Alpha DPM/100 cm ²	DIRECT Beta DPM/100 cm²
Alpha DPM/100 cm ² 1 2	Beta	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30	Beta	Alpha	Beta
Alpha DPM/100 cm ² 1 2 3	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta	Alpha	Beta
Alpha DPM/100 cm ² 1 2 3	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11.	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13 14	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13 14 15 16	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 30 31 32 33 34 35 36 37 38 39 40 41	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13 14 15 16 17	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13 14 15 16 17 18	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13 14 15 16 17 18 19	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13 14 15 16 17 18	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13 14 15 16 17 18 19 20	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13 14 15 16 17 18 19 20 21 22 23	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Beta	Alpha	Beta
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9. 10 11. 12 13 14 15 16 17 18 19 20 21 22	Beta	Alpha	DIRECT Beta DPM/100 cm²	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta



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SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707	
Survey Area: L		Survey Unit N/A	
Initiator/ Date	Release Date	Validation Date	Closure Date
A 10/55/89			

INITIAL SURVEY PACKAGE DESIGN FORM

Package ID 99-0	0002	Building 707		Type 3		
Survey Area L	Survey Unit N/A		\	Area (m²) 627		
		portion of room 240 lological areas are p			uth of Columns	
Survey Type			Classification			
RLC Survey X	FSS □		Class 1 Class	2 □ Class 3 □ U	Jnknown X	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
30	55	45	0	0	55	
Building.		Туре		Survey Area		
Survey Unit			Area (m²)			
Survey Unit Desc	eription.					
Survey Type			Classification			
RLC Survey 🗆	FSS 🗆		Class 1 Class	2 □ Class 3 □ U	Jnknown □	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
Building:		Туре.		Survey Area.		
Survey Unit			Area (m²)			
Survey Unit Desc	cription.					
Survey Type			Classification			
RLC Survey 🗆	FSS 🗆		Class 1 Class:	s 2 🗆 Class 3 🗆 Unknown 🗆		
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
Building		Туре		Survey Area		
Survey Unit			Area (m²)			
Survey Unit Desc	cription					
Survey Type			Classification			
RLC Survey □	FSS □		Class 1 Class :	2□ Class 3□ U	Jnknown 🗆	
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans	
'						

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002	Building: 707					
Survey Area: L	Survey Unit N/A					
Survey Unit Description: SOUTHERN PORTION OF ROOM 240, 2 ND FLOOR OF BUILDING 707 AREA IS SOUTH OF COLUMNS M-3, N-3, O-3, P-3 BUILDING 707 RADIOLOGICAL AREAS ARE POSTED AS FIXED CONTAMINATION AREAS						
Building Information:						
Survey Type Reconnaissance Level Characterization S Building Type Type 1 Type 2 Type 3 X Classification Class 1 Class 2 Class 3 Un	ıknown X					
Contaminants of Concern Plutonium X Uranium X	Other 🔲					
Justification for Classification: N/A						
Special Support Requirements: Ladder, manla instrumentation may be required for access into	<u> </u>	i i				
Special Safety Precautions: Access to overhead Review RWP requirements and surveys prior to overheads Special security requirements for ac	entry Use caution when work					
Isolation Controls:						
Level 1 🗆 Level 2 🗆 N/A X						
Labeling Requirements: NONE						
Survey Package Implementation:						
JAMES S JARVIS	and hamile	11/5/99				
	ological Engineer Signature	Date				
NOT APPLICABLE	Α //	Ń/A				
REFS Manager Printed Name REF	S.Manago Signature	Date				
H B ESTABROOKS	Pstalade	11/5/99				
RESS Manager Printed Name RES	S Manager Signature	Date				
Survey Package Closure:						
JAMES S JARVIS						
RESS Radiological Engineer Printed Name RES	S Radiological Engineer Signature	Date				
NOT APPLICABLE	A	N/A				
REFS Manager Printed Name	S Manager Signature	Date				
H B ESTABROOKS						
RESS Manager Printed Name	S Manager Signature	Date				

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Package ID: 99-0	002	Building	707	
Survey Area: L	** .** .**	Survey U	Jnit N/A	
Survey Unit Description: Southern portion of room 240, 2 Columns M-3, N-3, O-3, P-3 Building 707 radiological areas				
	Minimum Survey/Sampling	nent Requirements		
Measurement	Number and Type		Comments	
Surface Activity	FLOORS/WALLS < 2 meters		SEE NOTE 1	
Measurements	30 <u>unbiased</u> survey points uniformly d throughout the area.	istributed	SEE NOTE 2	
	25 biased survey points at the following	ıg	SEE NOTE 3	
	locations		SEE NOTE 4	
	- Points around floors adjacent to a contaminated equipment (where a such as glycol P-traps (plenums), pumps, etc	ccessible)		
	- Point near each airlock to the plea	nums		
	- Near waste drum storage			
	- Other areas of potential concern to RCT judgement/experience	pased on		
	CEILINGS/WALLS > 2 meters			
	30 <u>biased</u> surveys (divided evenly betward ceiling when possible) with focus following areas			
	- Walls behind process lines			
	- Tops/sides of plenums			
	- Stained or discolored areas			
	- Areas around pipe or other penetr	ations		
	EQUIPMENT	:		
	45 <u>biased</u> survey points on equipment or more samples from	with one		
	- Equipment which has visible leak contained spills beneath them	s or		
	- Survey points at exhaust ducts			
	- 5 survey points on top of overhead (where locations are accessible)	ad piping		
	- Other areas of potential concern to RCT judgement/experience	based on		

JORVET			is the cross round (cont)		
Package ID: 99-00	002	Building	; 707		
Survey Area. L		Survey Unit. N/A			
	, O-3, P-3 Building 707 radiologic	floor of Building 707 Area is South of posted as fixed contamination areas			
Minimum Survey/Sampling Measurement Requirements					
Measurement	Number and Type		Comments		
Surface Scanning	FLOORS/WALLS < 2 meters		SEE NOTE 1		
	55 1 m ² surface scans shall be taken at location identified for surface activity	each	SEE NOTE 2		
	measurements Locations found above	e the	SEE NOTE 3		
	DCGL shall be documented		SEE NOTE 4		
	CEILINGS/WALLS > 2 meters NONE EQUIPMENT NONE				
Media Samples	NONE (2 nd Floor of 707 does not have painted	i floors)			
Volumetric Samples	NONE				
Isotopic Gamma Scans	NONE				

Package ID: 99-0002	Building 707
Survey Area: L	Survey Unit [*] N/A

Survey Unit Description: Southern portion of room 240, 2nd floor of Building 707 Area is South of Columns M-3, N-3, O-3, P-3 Building 707 radiological areas are posted as fixed contamination areas

Survey/Sampling Instructions

NOTE 1 Representative surveys of the area will be taken in accordance with 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements", for the following

- Direct alpha contamination
- Direct beta contamination
- Removable alpha contamination
- Removable beta contamination
- lm² scan measurements for alpha then beta/gamma contamination

NOTE 2 The RCT shall document the locations of all surveys performed and maintain with the survey instructions package

NOTE 3: Areas which are posted/considered High Contamination Areas (HCA's) or Airborne Radioactivity Areas (ARA's) do not require Reconnaissance Level Characterization (RLC) surveys and may be skipped

NOTE 4 Surveys in these areas may be difficult to obtain due to height and/or access limitations RCT's shall utilize best judgement as to safely accessing these areas. Survey those areas that are readily accessible through reach tools, ladders, scaffolding and/or lift systems and where proper training has been received

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SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

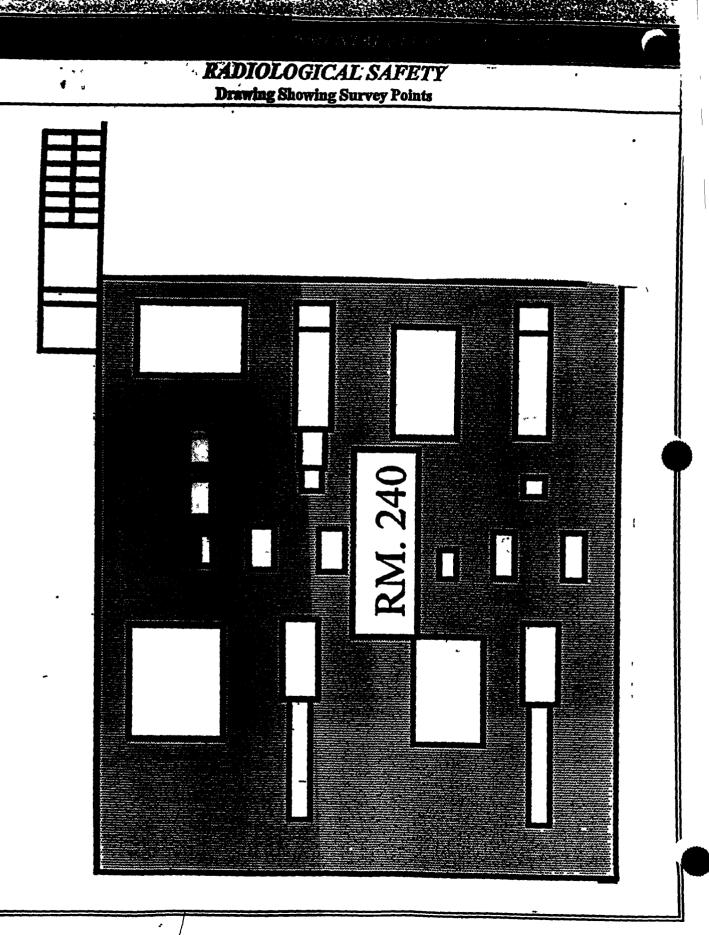
Package ID: 99-0002		Building, 707		
Survey Area: L		Survey Unit N/A		
Change #	Description		Initiator/ Date	PRE
				
				
		· · · · · · · · · · · · · · · · · · ·		
				
			<u> </u>	

SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID: 99-0002	Building 707	
Survey Area: L	Survey Unit N/A	
Survey Type: Reconnaissance Level Characterization	Survey X Final Status Surve	еу 🗆
All Documentation Reviewed for Completion	RCT Supervisor	PRE
Scan Surveys		
Total Activity Surveys		
Exposure Rate Surveys		
Removable Surveys		
Media Samples		
Volumetric Samples		
All Surveys and Samples Accounted For	RCT Supervisor	PRE
Scan Surveys		
Total Activity Surveys		
Exposure Rate Surveys		
Removable Surveys		
Media Samples		
Volumetric Samples		
Comments		
	DCT Supervisor S.	
	RCT Supervisor Signature	Date
	Project RE Signature	Date
	RESS Manager Signature	Date



	INSTRUMENT	DATA					
Afg	Mfg	Mfg		Survey Typ)e:		
Model			al	Building			
erial #			#	Location*			
al Due	Cal Due		ue	Purpose			
kg				_			
Efficiency			ency	RWP#			····
ÆDA			·	_}			
				Date		Time	
/lfg	Mfg			.			
Model	Model	Mode	el	_ RCT		<u> </u>	
erial #		Serial	1#	- 1	rınt name	Signat	ture Emp
al Due	Cal Due)ue	-			_
3kg	Bkg	Bkg		_ RCT		<u>/</u>	
Efficiency	Efficiency	Effici	iency	. P	rınt name	Signat	ture Emp
ADA	MDA	MDA	<u> </u>	_			·
			SURVEY	RESULTS			
REMOVA Alpha	Beta	DIRECT Alpha	DIRECT Beta	REMOVABLE Alpha	REMOVABLE Beta	DIRECT Alpha	DIRECT Beta
Alpha DPM/100	Beta cm ² DPM/100 cm ²		DIRECT	REMOVABLE Alpha DPM/100 cm ²			
Alpha DPM/100 1.	Beta cm ² DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27	Beta	Alpha	Beta
Alpha DPM/100 1	Beta cm² DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm ² 26 27 28	Beta	Alpha	Beta
Alpha DPM/100 12	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29	Beta	Alpha	Beta
Alpha DPM/100 12 3	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30	Beta	Alpha	Beta
Alpha DPM/100 1 2 3	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29	Beta	Alpha	Beta
Alpha DPM/100 1 2 3	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31	Beta	Alpha	Beta
Alpha DPM/100 1 2 3	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34	Beta	Alpha	Beta
Alpha DPM/100 1 2 3 4 5 6 7 8 9 10	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35	Beta	Alpha	Beta
Alpha DPM/100 1. 2 3 4 5 6 7 8 9 10 11	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36	Beta	Alpha	Beta
Alpha DPM/100 1. 2 3 4 5 6 7 8 9 10 11 12	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35	Beta	Alpha	Beta
Alpha DPM/100 1. 2 3 4 5 6 7 8 9 10 11	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37	Beta	Alpha	Beta
Alpha DPM/100 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Beta	Alpha	Beta
Alpha DPM/100 1 2 3 4 5 6 7 8 10 11 12 13 14 15 16	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41	Beta	Alpha	Beta
Alpha DPM/100 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Beta	Alpha	Beta
Alpha DPM/100 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Beta	Alpha	Beta
Alpha DPM/100 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Beta	Alpha	Beta
Alpha DPM/100 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Beta	Alpha	Beta
Alpha DPM/100 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta
Alpha DPM/100 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Beta DPM/100 cm²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Beta	Alpha	Beta



Rev. 05/98

SURVEY PACKAGE TRACKING FORM

Package ID: 99-0002		Building 707	Angele and the paper and the Administration
Survey Area. M		Survey Unit N/A	
Initiator/ Date	Release Date	Validation Date	Closure Date
A) 10/25/99			
	· · · · · · · · · · · · · · · · · · ·		

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INITIAL SURVEY PACKAGE DESIGN FORM

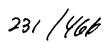
Package ID 99-0	002	Building 707		Type 3	
Survey Area M		Survey Unit. N/A	\	Area (m ²) 634	
		F MODULE A (ROixed contamination	OOM 100) EXCLUI areas	DING ISOPRESS R	OOM Building
Survey Type.			Classification		
RLC Survey X	FSS 🗆		Class 1 Class	2 🗖 Class 3 🗖 U	Jnknown X
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
45	47	40	4	0	62
Building.		Туре		Survey Area	
Survey Unit			Area (m²)		
Survey Unit Desc	ription				
Survey Type			Classification		
RLC Survey □	FSS □		Class 1 Class	2 □ Class 3 □ U	Jnknown 🗖
Random/Uniform Surface Activity Measurements	Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Media Samples	Volumetric Samples	Surface Activity Scans
Building		Type·		Survey Area	
Building Survey Unit.		Туре	Area (m²)	Survey Area	
	cription	Type [.]	Area (m²)	Survey Area	
Survey Unit.	ription	Туре	Area (m²) Classification	Survey Area	
Survey Unit. Survey Unit Desc	FSS 🗆		*		Jnknown □
Survey Unit. Survey Unit Desc		Type: Equipment Surface Activity Measurements	Classification		Jnknown □ Surface Activity Scans
Survey Unit. Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1	2 Class 3 U	Surface Activity
Survey Unit. Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity	FSS Biased Surface Activity	Equipment Surface Activity	Classification Class 1	2 Class 3 U	Surface Activity
Survey Unit. Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements	FSS Biased Surface Activity	Equipment Surface Activity Measurements	Classification Class 1	2 □ Class 3 □ U Volumetric Samples	Surface Activity
Survey Unit. Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements Building	FSS Brased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 Class Media Samples	2 □ Class 3 □ U Volumetric Samples	Surface Activity
Survey Unit. Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit	FSS Brased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 Class Media Samples	2 □ Class 3 □ U Volumetric Samples	Surface Activity
Survey Unit. Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description	FSS Brased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 Class Media Samples Area (m²)	2 Class 3 U Volumetric Samples Survey Area	Surface Activity
Survey Unit. Survey Unit Description Survey Type. RLC Survey Random/Uniform Surface Activity Measurements Building Survey Unit Survey Unit Description Survey Type	FSS Biased Surface Activity Measurements	Equipment Surface Activity Measurements	Classification Class 1 Class Media Samples Area (m²)	2 Class 3 U Volumetric Samples Survey Area	Surface Activity Scans

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SURVEY PACKAGE COVER SHEET

Package ID: 99-0002		Building: 707	
Survey Area: M		Survey Unit: N/A	
Survey Unit Description: Inside RADIOLOGICAL AREAS ARE POST			BUILDING 707
Building Information:			
Survey Type Reconnaissance Level (Characterization	Survey X Final Status Survey □	
Building Type Type 1 ☐ Type 2 ☐	Type 3 X		
Classification Class 1 □ Class 2 □	Class 3 🔲	Unknown X	
Contaminants of Concern Plutonium	X Uranium X	Other 🗆	
Justification for Classification:	N/A		
Special Support Requirements instrumentation may be required	•	,	
Special Safety Precautions: Ac Review RWP requirements and soverheads			
Isolation Controls:			
Level 1 🗆 Level 2 🗆 N/A X			
Labeling Requirements: NONE			
Labeling Requirements. NONE			
Survey Package Implementation	n:		
Current Dockage Cleanse	Limproyee # I	EDD (Manager Digitatore	Date
Survey Package Closure:			
		Radiological Engineer Signature	Date
		4	N/A
		Manager Signature	Date
RESS Manager Printed Name	Employee # R	ESS Manager Signature	Date

Package ID: 99-0	002 B	uilding 707		
Survey Area: M		Survey Unit N/A		
•	-	(ROOM 100) EXCLUDING ISOPRESS POSTED AS FIXED CONTAMINATION AREAS		
	Minimum Survey/Sampling Me	easurement Requirements		
Measurement	Number and Type	Comments		
Surface Activity	FLOORS/WALLS < 2 meters	SEE NOTE 1		
Measurements	45 <u>unbiased</u> survey points uniformly districtional throughout room	SEE NOTE 2		
	17 <u>biased</u> survey points at the following locations	SEE NOTE 3 SEE NOTE 4		
	- 3 points adjacent to each stokes pump			
	- 3 points around floor near GB A-15			
	- 2 points near c-cell 530			
	- 2 points near criticality drain location	ıs		
	- 2 points near entrance to isopress roo	m		
	- 2 points near Soft Sided Containment GB A-20/A-30	near		
	CEILINGS/WALLS > 2 meters.			
	30 biased surveys (divided evenly between and ceiling where possible) with focus on following areas	n wall		
	- Walls behind process lines			
	- Ceilings above GB's			
	- Ceilings/walls adjacent to c-cells/tent	s		
	- Stained or discolored areas			
	- Walls/ceilings near GB's mounted his walls	gh on		
	- Areas around pipe or other penetration	ns		
	EQUIPMENT			
	40 <u>biased</u> survey points on equipment with or more samples from	n one		
	- Each GB "section" extending from the (center) GB line	ne main		
	- Equipment in the vicinity of the stoke pumps	es		
	- Gloveboxes which have visible leaks contained spills beneath them	or		
	- 2 surveys at 2 different room exhaust	ducts		
	- Bag-ın/bag out ports to GB lines			
	- 5 survey points on top of overhead p (where locations are accessible through			



Package ID: 99-0002	Building 707
Survey Area: M	Survey Unit N/A

Survey Unit Description · INSIDE OF MODULE A (ROOM 100) EXCLUDING ISOPRESS ROOM BUILDING 707 RADIOLOGICAL AREAS ARE POSTED AS FIXED CONTAMINATION AREAS

	Minimum Survey/Sampling Measure	ment Requirements
Measurement	Number and Type	Comments
Surface Scanning	FLOORS/WALLS < 2 meters	SEE NOTE 1
	62 1 m ² surface scans shall be taken at each	SEE NOTE 2
	location identified for surface activity measurements Locations above the DCGL are	SEE NOTE 3
	to be documented	SEE NOTE 4
	CEILINGS/WALLS > 2 meters	
	NONE	
	EQUIPMENT	
	NONE	
ledia Samples	Total of 4 biased (paint) media samples taken as follows	SEE NOTE 5
	- 1 sample near one of the entrances to the module	
	- 1 sample near the HCA around one of the stokes pumps	
	- 1 sample beneath GB A-15 (EU decon GB)	
	- 1 sample near a criticality drain	
olumetric	NONE	
ımples		
otopic Gamma	NONE	
cans		

Package ID: 99-0002	Building 707
Survey Area: M	Survey Unit. N/A

Survey Unit Description: INSIDE OF MODULE A (ROOM 100) EXCLUDING ISOPRESS ROOM BUILDING 707 RADIOLOGICAL AREAS ARE POSTED AS FIXED CONTAMINATION AREAS

Survey/Sampling Instructions

NOTE 1: Representative surveys of the area will be taken in accordance with 3-PRO-165-RSP-07 02, "Contamination Monitoring Requirements", for the following

- Direct alpha contamination
- Direct beta contamination
- Removable alpha contamination
- Removable beta contamination
- 1m² scan measurements for alpha then beta/gamma contamination

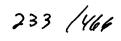
NOTE 2. The RCT shall document the locations of all surveys performed and maintain with the survey instructions package

NOTE 3: Areas which are posted/considered High Contamination Areas (HCA's) or Airborne Radioactivity Areas (ARA's) do not require Reconnaissance Level Characterization (RLC) surveys and may be skipped

NOTE 4. Surveys in these areas may be difficult to obtain due to height and/or access limitations RCT's shall utilize best judgement as to safely accessing these areas. Survey those areas that are readily accessible through reach tools, ladders, scaffolding and/or lift systems and where proper training has been received

NOTE 5 For <u>each</u> media sample location, perform the following in accordance with PRO-477-RSP-16 03, "Radiological Samples of Building Media"

- RCT verify that the media sampling location is free of removable surface activity prior to media sampling If the surface contains removable contamination, then the surface shall be decontaminated prior to collecting the media sample
- RCT perform and document a survey for direct contamination (alpha then beta) and removable contamination (alpha then beta) in accordance with 3-PRO-165-RSP-07 02, Contamination Monitoring Requirements, prior to media sampling
- Media Sampler using an appropriate tool, remove the surface material to a depth sufficient to expose the base material over the entire sample area
- Media Sampler Media sample area shall be as large as the NE Electra (standard radiation detection instrument) probe area. The area of the media shall be documented at time of collection
- Media Sampler Sample weight of media samples shall be determined prior to analysis
 Disposition the sample in accordance with approved procedures
- Media Sampler media samples shall include analysis for Pu-239, Am-241, U-234, U-235, and U-238
- Following each media sample, the RCT shall perform and document a survey for direct contamination (alpha then beta) and removable contamination (alpha then beta) in accordance with 3-PRO-165-RSP-07 02, Contamination Monitoring Requirements



SURVEY PACKAGE CORRECTION/CHANGE HISTORY FORM

Package ID: 99-0002		Building 707		
Survey Area: M		Survey Unit N/A		<u> </u>
Change #	Description		Initiator/ Date	PRE
	West of the second seco			
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SURVEY PACKAGE VALIDATION CHECKLIST FORM

Package ID: 99-0002	Building 707	
Survey Area: M	Survey Unit: N/A	
Survey Type: Reconnaissance Level Characterization	Survey X Final Status Sui	rvey 🗆
All Documentation Reviewed for Completion	RCT Supervisor	PRE
Scan Surveys		
Total Activity Surveys		
Exposure Rate Surveys		
Removable Surveys		
Media Samples		
Volumetric Samples		
All Surveys and Samples Accounted For	RCT Supervisor	PRE
Scan Surveys		
Total Activity Surveys		
Exposure Rate Surveys		
Removable Surveys		
Media Samples		
Volumetric Samples		
Comments	_	
	RCT Supervisor Signature	Date
	Project RE Signature	Date
	RESS Manager Signature	Date

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I	nstrument	DATA						
fg	Mfg			Survey Typ	pe:			
odel	Model	Model		Building				
erial #	Serial #	Serial	#	Location*_				
al Due	Cal Due	Cal Du	ıe	Purpose				
kg								
ficiency	_		ncy	RWP#				
DA								
		-		Date		Time		
fg	Mfg							
odel	Model			-) — ————		/		
rıal #	Serial #	Serial	#	•	rınt name	Signat	ture	Emp
al Due	Cal Due	Cal Du	ıe	.				
сg	Bkg	Bkg		RCT		<i>l</i>		_/
ficiency	Efficiency	Efficie	ency	P	rint name	Signat	ture	Emp
DA	MDA	MDA		_				
REMOVABLE		DIRECT	SURVEY DIRECT	REMOVABLE	REMOVABLE	DIRECT	DIREC	
REMOVABLE Alpha DPM/100 cm ²	Beta DPM/100 cm ²	Alpha		REMOVABLE Alpha DPM/100 cm² 26	REMOVABLE Beta DPM/100 cm ²	DIRECT Alpha DPM/100 cm²	DIREC Beta DPM/100	
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REMOVABLE Alpha DPM/100 cm² 1 2 3 4 5 6 7 8	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33	Beta	Alpha	Beta	
REMOVABLE Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32	Beta	Alpha	Beta	
REMOVABLE Alpha DPM/100 cm² 1 2 3 4 5 6 7 8	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36	Beta	Alpha	Beta	
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REMOVABLE Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	Beta	Alpha	Beta	
REMOVABLE Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	Beta	Alpha	Beta	
Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Beta	Alpha	Beta	
REMOVABLE Alpha DPM/100 cm² 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Beta DPM/100 cm ²	Alpha	DIRECT Beta	REMOVABLE Alpha DPM/100 cm² 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Beta	Alpha	Beta	

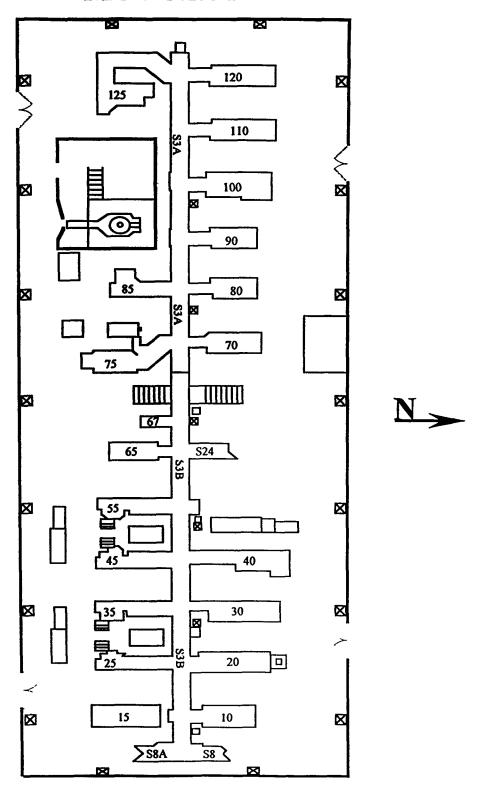
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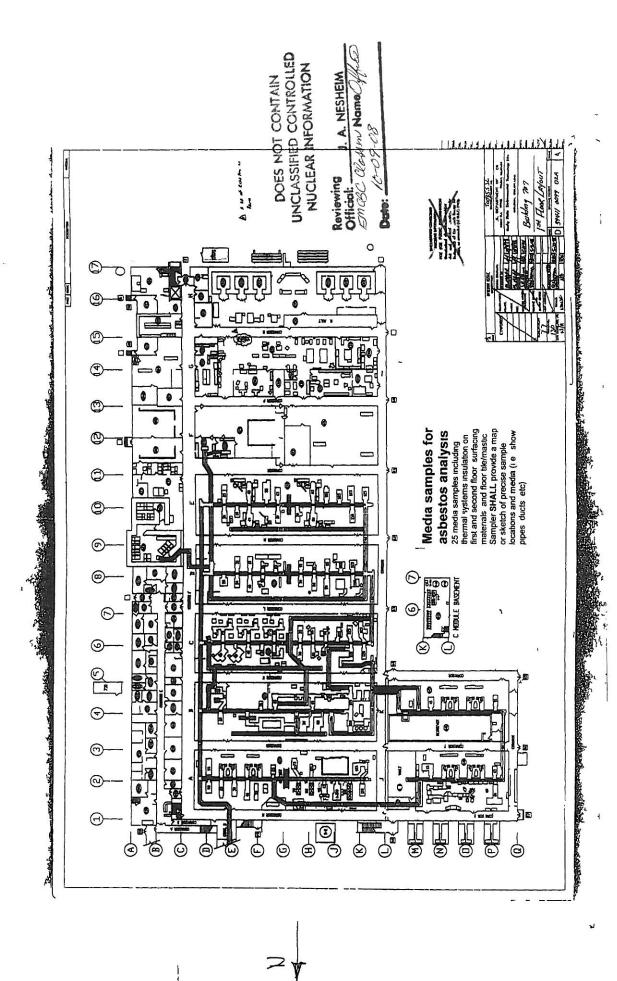
Drawing Showing Survey Points

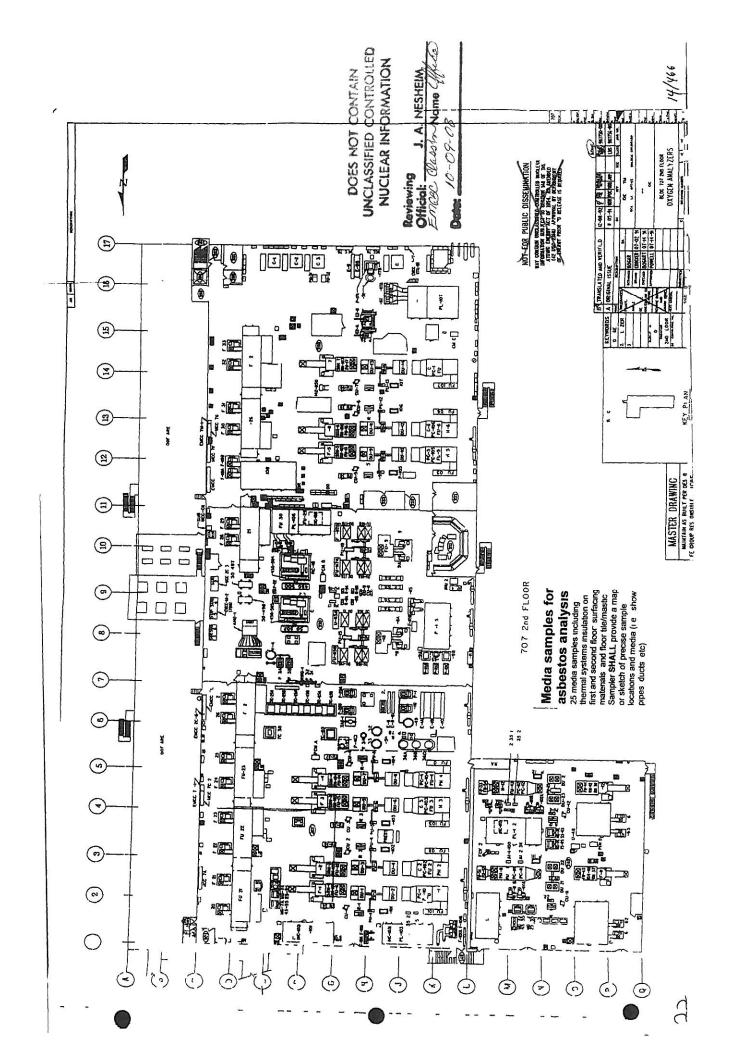
MODULE A

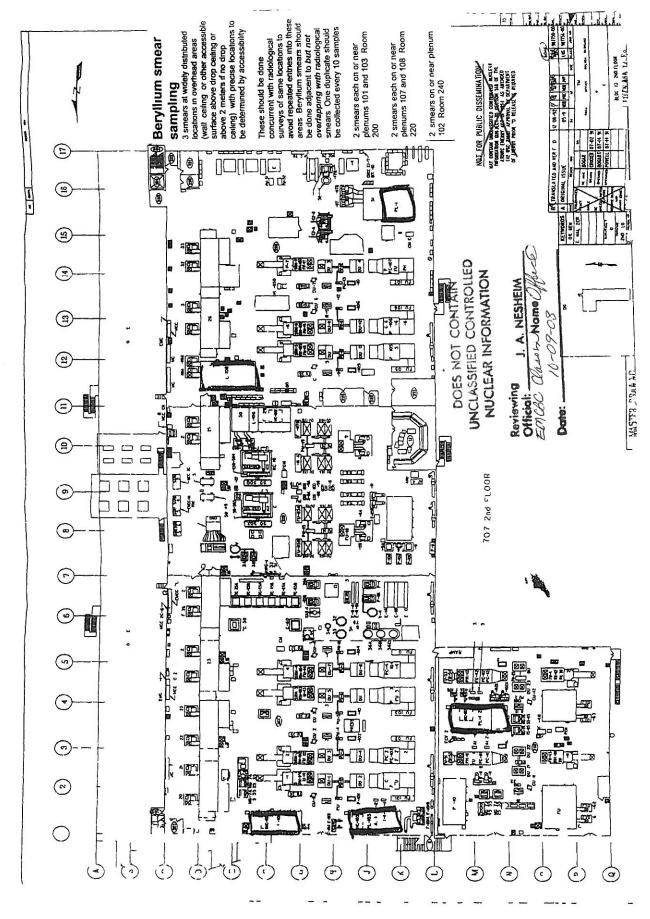


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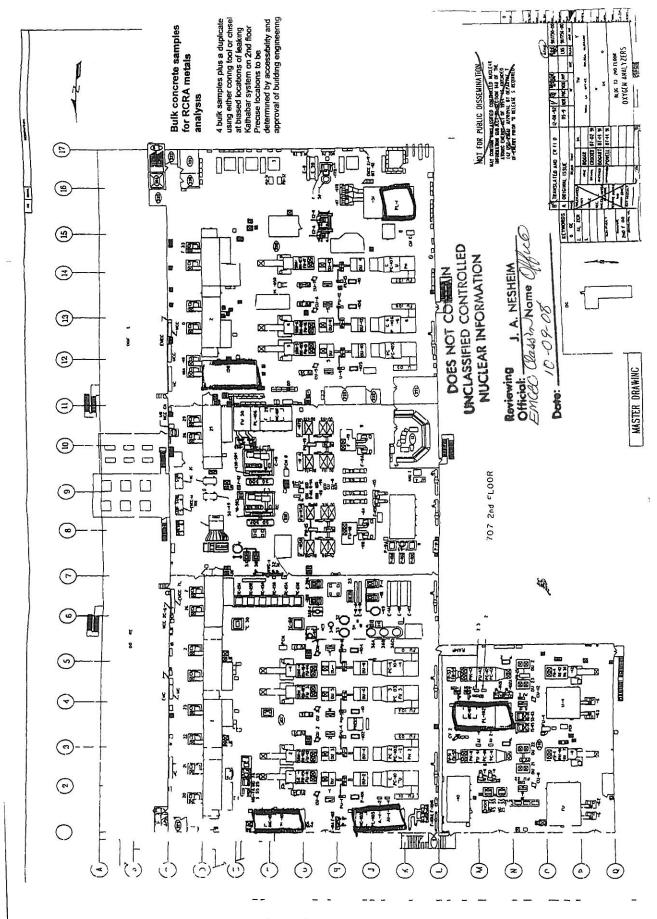






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